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AN HISTORICAL GEOGRAPHY OF AGRICULTURAL PATTERNS
AND RESOURCE APPRAISALS IN RUPERT'S LAND

1670-1774

by



Donald Wayne Moodie

A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled An Historical Geography of Agricultural Patterns and Resource Appraisals in Rupert's Land 1670-1774 submitted by Donald Wayne Moodie in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

ABSTRACT

From its inception in 1670 until 1774, the Hudson's Bay Company prosecuted the fur trade of Rupert's Land from several small settlements located on the shores of Hudson Bay. Despite the harsh nature of the physical environment of the Bayside, agriculture was practised at each of the settlements throughout the first century of the Company's trade.

Two distinct periods can be recognized in the Company's attempts to develop agriculture at this time. In the period 1670-1713, a series of agricultural experiments was begun which culminated in the implementation of an overly ambitious scheme for agriculture that proved impracticable along the coast of the Bay. These endeavours resulted from misinterpretations of the agricultural potential of the Bayside and, although they involved a short-lived attempt to develop commercial agriculture, were conducted mainly with a view to rendering the settlements self-sufficient in foodstuffs which otherwise had to be imported from Europe.

Following 1713, the Company slowly revised its opinions of the Bayside agriculture resource and, by the late 1730's, abandoned its attempts to provision the settlements with food that was raised locally. Although isolated attempts to grow cereals occurred during this period, the Company became reconciled to raising vegetables and small numbers of hardy livestock.

Agriculture remained a feature of these arctic and subarctic settlements, not because it defrayed the costs of provisioning, but because it was necessary to maintaining the health of the men.

Although the Company came to appreciate the environmental constraints to agriculture on the Bayside, it learned little of agricultural possibilities elsewhere in Rupert's Land. Throughout this century, its interests in the lands beyond the Bay were narrowly commercial in nature. Even in the last two decades of its confinement to the Bay, when its servants travelled annually over large expanses of the interior, this commercial focus ensured that the Company acquired but a crude impression of the physical characteristics of interior Rupert's Land.

Prior to this time, there developed in England an interest in the vast territories held by the Company and speculation on the nature of these lands for settlement. In most respects, the ideas relating to the environmental characteristics of Rupert's Land were based upon the scientific thinking of the time and, from theorizing of this kind, there emerged a picture of temperate lands just to the south and west of the Bay that were as suited to agriculture as lands in similar latitudes in Europe. As the Company was not informed on matters of this nature, these views came to comprise the accepted image of Rupert's Land in England.

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INTRODUCTION

On May 2nd, 1670, the Hudson's Bay Company was granted the exclusive right of trade and almost sovereign power over the vast lands drained by the rivers flowing into Hudson Bay. This area, known as Rupert's Land, came to be but imperfectly known by the Company during the first century of its North American trade. During this century the Hudson's Bay Company was able to exploit the fur resources of much of Rupert's Land by trading with the Indians on the shores of Hudson Bay. Not until 1774 did the Company expand inland and, until that time, it settled only the coastal margins of the territory it had been granted. The agriculture that was attempted at these settlements, together with the knowledge and understanding that was gained of its chartered lands, were both strongly conditioned during this period by the Company's monopoly and its self-imposed confinement to the shores of Hudson Bay.

The objectives of this study are two-fold: first, to reconstruct and explain the characteristics of the agriculture that the Company endeavoured to develop in the period 1670-1774, and second, to ascertain and assess the knowledge of the agricultural potential of Rupert's Land that was acquired during this period. Both objectives are highly interrelated and, together constitute a geography of the agricultural patterns

and ideas that characterized the first century of Hudson's Bay Company occupance in Rupert's Land.

Despite the harsh environment in which the Company's establishments were set during this period, agriculture became a permanent feature of each within a few years of their founding. The Company's concern for agriculture led to assessments of the agricultural potential of the land. These in turn influenced the Company's agricultural endeavours, which themselves modified the Company's perception of the agricultural resource. Thus, the Company's attitudes toward the environment were inseparable from the agriculture engaged in by its servants. The Company's perception of the environment, in consequence, comprises an integral part of the attempt to explain the agricultural patterns and ideas of the period. Environmental perception in itself, however, is not an objective of the thesis, but is considered only insofar as it furthers an understanding of the agricultural endeavours and appraisals of the time.

Interest in Rupert's Land during this period was not confined to the commercial concerns of the Company that monopolized its trade. In the middle years of the eighteenth century, public opposition in England to trading monopolies generated a controversy over the nature of the Company's lands. This debate, which commenced in the 1740's, was not confined

to the Bayside areas settled by the Company, but was extended to include speculation about environmental conditions in the interior, especially as they related to colonization and agricultural settlement. A necessary part of this study is to resolve this controversy. To this end, an attempt is made to reconstruct the Company's knowledge of its lands beyond the Bay, as well as that which characterized the writings of its critics in England, in order to elucidate the ideas of the agricultural potential of Rupert's Land that had emerged by the end of this period. As in the previous instance, environmental perception is considered only to the extent that it influenced the knowledge that was gained of the agricultural resource of the Company's territories.

Chapter I of the thesis examines the Company's charter with a view to establishing the legal status of the Company, as well as its rights and responsibilities with respect to agriculture. Chapters II and III are devoted to the Company's agriculture and associated environmental ideas in the period 1670-1713. In Chapter IV, the image of the agricultural potential of Rupert's Land that evolved in England is discussed. Chapter V reconstructs what was in fact known on this subject in terms of what the Company learned of their lands beyond the Bay. Chapter VI, which is the final chapter, is concerned with agriculture on the Bayside in the period 1713-1774.

CHAPTER I

THE ROYAL CHARTER FOR INCORPORATING THE HUDSON'S BAY
COMPANY, A.D. 1670

"In itself the charter is the purest piece of feudalism ever perpetrated on America, a thing ... destined to play such a necessary part in the development of northern empire that it is worth examining ... the charter was purely a royal favour, depending on that idea of the Stuarts that the earth was not the Lord's, but the Stuarts, to be disposed of as they wished. With such a charter, believing in its validity as they did in their own existence, it is not surprising that the Adventurers of Hudson Bay ran the magnificent career the Company has had, and finally - ran their privileges aground."

1.

Agnes C. Laut.

When the disaffected Frenchmen, Pierre Esprit Radisson and Médard Chouart, Sieur des Groseilliers, appeared in England with a scheme for tapping the French peltry trade in Canada, the proposal met with almost immediate support.

1. Agnes C. Laut, The Conquest of the Great Northwest, New York, 1911, pp. 119, 124.

These men, possessed of perhaps more knowledge of the French fur trade than any of their contemporaries, were convinced from experience that the furs from the north of Canada were more accessible to Europe from the sea via Hudson Bay than from the French-controlled St. Lawrence-Great Lakes system. Their scheme, to turn the French flank by initiating a maritime trade at the northern outlet of the fur areas, offered a prospect of good profits and, in the air of imperial optimism that characterized Restoration England, was readily subscribed to by men of both means and influence. Among them were business men, merchants and bankers of the City of London, administrators long experienced in colonial affairs, scientists curious as to the nature of the northland and aristocrats in favour at the court of Charles II. It was this combination of expertise and influence, fertilized by the experience and relevant geographical concepts of the two Frenchmen from Canada, that launched the British on a new attempt to harvest the furs on North America.

Organized into an informal group in 1667, the supporters of the scheme obtained a commission from the King, as well as

the "sole trade of what Countryes they shall discover."^{2.}

In June, 1688, the syndicate despatched two small ships, the *Eaglet* and the *Nonsuch*, to Hudson Bay. Only the *Nonsuch* reached its destination. Its crew took possession of the land at the mouth of the Rupert River, traded with the Indians and returned to England on October 9, 1669. Two days after the return of the ship it was reported that:

"Last Satterday night came in the Nonsuch Ketch from the Northwest passage. Since I have endeavoured to find the proceedes of their voyage, only understand they were environed with ice about 6 monethes, first haleing theire ketch on shore, and building them a house ... They report the natives to bee civill and say Beaver is very plenty."^{3.}

The furs, which were superior in quality to those of Canada or New England, were readily disposed of in London for £1,379 6s.10d.^{4.} Although by no means munificent recompense, the returns from the *Nonsuch* were sufficient to justify using the northern sea route. This new wealth, together with the optimistic report on the Bayside fur resource, consolidated the enterprise, and the thirteen men who had backed

2. E.E. Rich, The History of the Hudson's Bay Company 1670-1870, Vol. 1: 1670-1763, London, 1958, p. 31.

3. "Letter from Richard Watts to the Secretary of State, October 11, 1669," quoted in A.S. Morton, A History of the Canadian West to 1870-71, Toronto, 1939, p. 51.

4. E.E. Rich, op. cit., p. 42.

the venture lost little time in seeking a royal charter. As the charter, which survived as a legal instrument to the end of the fur trade era, provided the framework within which the Company was to operate, it is only in terms of the charter that the Company's subsequent agriculture, as well as related activities, can be viewed in full perspective.

A. NATURE OF THE CHARTER

On May 2nd, 1670, Charles II granted incorporation to the "Governor & Company of Adventurers of England tradeing into Hudsons Bay." By the charter the Company was accorded:

"the sole Trade and Commerce of all those Seas Streights Bays Rivers Lakes Creekes and Sounds in whatsoever Latitude they shall bee that lie within the entrance of the Streights commonly called Hudsons Streights together with all the Lands and Territoryes upon the ... aforesaid that are not actually possessed by or granted to any of our Subjectes or possessed by the Subjectes of any other Christian Prince or State."⁵

Thus, the royal charter bestowed upon the new Company the sole trade through Hudson Strait, as well as exclusive possession of any territory they might discover in prosecuting their trade through that Strait. It also provided that

⁵; Hudson's Bay Company (hereafter H.B.C.), Charters, Statutes, Orders in Council &c Relating to the Hudson's Bay Company, Glasgow, 1931, p. 11.

the territories the Company might acquire be reckoned as part of one of His Majesty's "Plantacions or Colonyes in America called Ruperts Land."^{6.} The responsibility for establishing and administering the colony, moreover, rested with the Company, an arrangement not uncommon among the colonial powers of Europe of the time. In constituting the Company "the true and absolute Lordes and Proprietors" of Rupert's Land, the Crown freed itself of the onerous task of governing a distant possession. The Company, on the other hand, was prepared to assume the task of government from the profits of the monopoly trade.

To facilitate the establishment of a colony, the Company was given the right to make "Laws Constitucions Orders and Ordinances," as well as to enforce them and mete out punishments. It was also accorded the powers of war and peace, in order that it might attend to the defence and security of the colony. In the Company, moreover, were vested the mineral and fishing rights of Rupert's Land, while to ensure that the Company had at its disposal the means of maintaining itself in its overseas colony, it was provided:

6. Loc. cit.

"that it shall and may bee lawful to ... Erect and build such Castles Fortifications Fortes Garrisons Colonyes or Plantacions Townes or Villages ... as they in theire Discrecions shall think fitt and requisite and for the supply of such as shall be needfull and convenient to keep and bee in the same to sent out of this Kingdome to the said Castles Fortes ... all kinds of cloathing Provision of Victuales Ammunition and Implementes necessary for such purpose paying the Dutyes and Customes for the same."⁷.

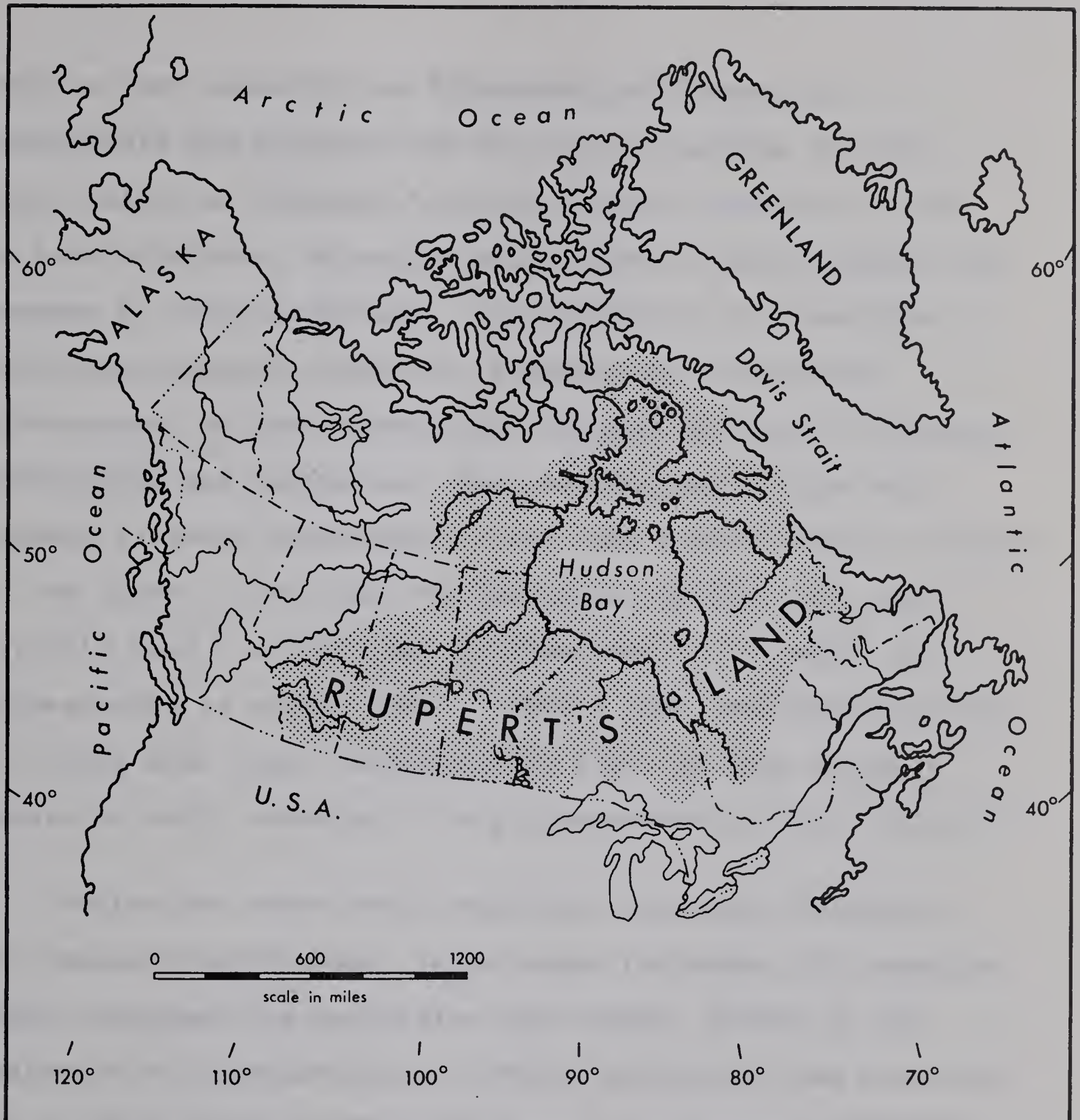
Not only the territories, but any settlements upon them were to fall "under the power and command of the said Governor and Company," saving only the faith and allegiance due the monarch. Thus, by the royal patent, the Company was granted not only a monopoly of trade, but almost sovereign power over a vast portion of North America that came to be equated with the drainage basin of Hudson's Bay (Fig. 1). Its geographical dimensions, however, would be comprehended only after generations of Company servants had toiled in the northern half of the continent.

Although comprehensive and sweeping in scope, the Hudson's Bay Company's charter was consistent in an age when proprietary grants were recognized as the prerogative of the Crown. The charters of other seventeenth century North American colonies or plantations incorporated by the Crown,

7. Ibid., p. 19.

Figure 1

RUPERT'S LAND ACCORDING TO J. ARROWSMITH, 1857



Source: After N.L. Nicholson, The Boundaries of Canada,
Dept. of Mines and Technical Surveys, Geographical Branch,
Memoir 2, Ottawa, 1964, p. 35. This map does not include
that portion of Hudson Bay drainage south of the international
boundary in Minnesota and North Dakota.

such as that accorded the "Treasurer and Company of Adventurers and Planters for the City of London, for the first colony in Virginia," or the Maryland Charter of 1632 to Lord Baltimore, closely rivalled that of the Hudson's Bay Company in their amplitude. In contrast to the grantees of most North American charters, however, the "Gentlemen Adventurers" of the Hudson's Bay Company were men of relative consequence and influence. The proprietors of "the Bay Company included personages of the very highest rank, a Prince of the Blood - from whom the plantation derived its name, Rupert's Land - at the head of them, and it is surely not unreasonable to assume that in such a case the sovereign meant to clothe such royal 'adventurers' with the very greatest powers he could exercise of his prerogative in that behalf."^{8.}

Unlike the other North American colonizing companies, the Hudson's Bay Company, immediately following its incorporation, focussed its activities upon trade, almost to the exclusion of colonization. In fact, during its two centuries of proprietary rule in Rupert's Land, the Company operated essentially under the sections of the charter granting exclusive rights of trade. These sections furnished the basis

^{8.} Archer Martin, The Hudson's Bay Company's Land Tenures, London, 1898, p. 3.

for much of the criticism to which the Company was exposed during this period and have, in consequence, received the most attention. But the charter, from an analysis of its terms, can be considered only as a charter for a colony. Because of the Company's activities, however, it acquired among the colonial charters a peculiar, if not unique, role. Written by the royal scrivener for a colony, it was employed by the Company, not for settlement, but as a legal vehicle for trade.

The Company's emphasis upon trade came both early and easy. The incentive for founding the Company lay, not in hoped-for profits from a colonial establishment, but in the possibility of a lucrative fur trade from America. More important, its patent presented no obstacle to the exclusive prosecution of its trading interest. In fact, the whole charter, according to E.E. Rich, was "a magnificent grant of rights and privileges, not a specification of duties."⁹ The only duties laid upon the Company were allegiance to the Crown and the payment of two elks and two black beavers to the monarch in the unlikely event that he or his successors set

9. E.E. Rich, op. cit., p. 56.

foot in Rupert's Land. A range of possibilities, then, was open to the Company, each of which, by the charter, was permissive rather than obligatory. Although colonization is amply provided for in the charter, nowhere is the fostering of settlement laid upon the Company as a duty. It is even possible, according to Rich, "to take the clauses empowering settlement as mere formalities."^{10.}

This interpretation of the charter, it should be observed, does not represent a consensus among scholars of the Company's history. The most notable exception to the view presented here is contained in A.S. Morton's A History of the Canadian West 1870-71. Morton wrote that "The royal Patent granted wide privileges to the Company, but it imposed upon it the obligation of establishing a trade and the settlements incident to it ..."^{11.} He further noted that "It was always the quiet assumption of the English Government that the Company must develop the trade of the country granted, and effect such settlements as the climate and the conditions of the land would permit."^{12.} As regards the latter, Morton

10. Loc. cit.

11. A.S. Morton, op. cit., p. 56.

12. Ibid., p. 57.

is alone in his contention about the quiet posture of the Imperial Government. If in fact this was an assumption of the British Government, it had no impact upon the Company, for at no time during the two hundred years of the Company's tenure in Rupert's Land can it be construed that the Company effected such settlements "as the climate and the conditions of the land" permitted. Morton's former statement hinges entirely upon his interpretation of the charter. As the charter, in the author's opinion, is not phrased to imply the obligations described by Morton, the view expressed by E.E. Rich - that the charter was permissive in these matters - has been adopted here.

During its two hundred years in Rupert's Land the Company was frequently criticized for its failure to promote settlement and, in general, to develop the resources of the country. Wave after wave of public outcry and parliamentary inquiries, however, failed to stir the Company in this direction. Rather, of its own volition, the Company elected to concentrate on the fur trade, and the latter was possible because the charter, well drawn in the interests of self-preservation, was permissive and survived the period intact.

The validity of the charter, however, fell open to question shortly after the demise of the Stuarts in 1688. Although the Company sought for and obtained sanction from Parliament in 1690, this singular parliamentary confirmation of the charter ran for a seven year period only. It was not renewed following 1697 and the charter, which had been granted at a time when "the prerogative was high," was henceforth suspect as a legal instrument. At this significant juncture, the Company's trade was still small and dividends from it had been few and unencouraging. With the shrinking possibility of large profits, "the courtiers and ministers of the early days were replaced by City men, and it may have been the Company's resultant lack of political weight which explains the partial failure of its attempt in 1690 to obtain Parliamentary confirmation of the charter."¹³.

Although the unconfirmed charter was subsequently defied, by the French, by British and American interlopers, and especially by the North West Company, it was challenged in practice only, and never in the courts of law. "None, not

13. Glyndwr Williams, "The Hudson's Bay Company and its Critics in the Eighteenth Century," Transactions of the Royal Historical Society, 5th Series, Vol. 20, 1970, p. 150.

even the Government of Canada in the nineteenth century, with whom the expense of this procedure would not figure,^{14.} ventured on that uncertain path." The charter, in consequence, remained the legal expression of the Company's modus operandi, and survived as the sole instrument in that capacity until 1884.

B. IMPLICATIONS OF THE CHARTER TO COMPANY AGRICULTURE

Only in terms of the permissive nature of the charter can the Hudson's Bay Company's legal position with respect to agriculture be fully understood. The Company was empowered to establish colonies, plantations, villages or towns for any purpose that it might consider desirable, including any that might be required to furnish the Company with supplies. The Company, then, possessed the right to establish agricultural colonies should they be considered desirable to meet the provisions requirements of its settlements in Rupert's Land. Such, for example, was the case with the colony at Red River, founded in 1812 by the Earl of Selkirk, the most influential of the Company's shareholders at the time. Although no doubt

^{14.} A.S. Morton, op. cit., p. 226.

viewed by the Earl as a philanthropic scheme for settling Scottish crofters, it was envisaged by the Company as a potentially valuable source of agricultural foodstuffs, and was encouraged by the Company with this aim in mind.^{15.}

The Company, however, was not obliged to rely upon the resources of Rupert's Land to meet its food requirements, for provision was also made in the charter for the importation of agricultural foodstuffs, a business in which the Company was almost annually engaged throughout the period of proprietary rule. So wide, in fact, were the Company's discretionary powers that the right to export, as well as import, agricultural products is implicit in the phrasing of the charter. As previously noted, the Company was granted the sole commerce of Rupert's Land, while in the preamble to the charter the hope was expressed that, from the Company's "Trade for Furrs Mineralls and other considerable Commodities,"^{16.} there would "arise very great advantage to us and our Kingdome." On a number of occasions, the Company considered, experimented with, and at times succeeded in, exporting products other

^{15.} Idem., "The Place of the Red River Settlement in the Plans of the Hudson's Bay Co., 1812-1825," Canadian Historical Association Annual Report, 1929, p. 105.

^{16.} H.B.C., op. cit., p. 3.

than fur. A miscellany of products, as diverse as caviar and copper, were to prove of no account. Flax and hemp from Albany, and tallow and wool from Red River, met a similar fate. A number of products other than fur, however, were periodically exported and with some success, among which might be included whale oil, castoreum and quills, although none of these was of any significance in the total trade. In consequence, the Company's trade remained almost exclusively a fur trade. That it did, however, was a matter of business, and in no way the result of any strictures the patent imposed upon the Company's monopoly trade.

The charter, thus, imposed no obligation upon the Company to develop, let alone explore, the agricultural resource of its chartered lands. Nor did it limit the sort of agriculture in which the Company might engage, or the role it might play in the Company's trade. Rather, the Company, whether by design or not, was accorded a virtual carte blanche, being free by its patent to indulge in agriculture if and how it wished.

CHAPTER II

SETTLEMENT AND THE COMPANY'S FIRST AGRICULTURAL TRIALS

"... appley your selfe to trey in all places where we ar settled what the earth will bring forth, & that you may make the experiments we have furnished. you wth. severall sorts of seeds and graynes & will continue to doe soe from yeare to yeare & shall think it a very meritorious worke if you effectually prosecute it."

Governor and Committee of the
Hudson's Bay Company¹.

The advent of permanent English settlement to mainland Canada witnessed the introduction of agriculture into a northern wilderness that even today defies attempts to wrest a living from the soil. The few settlements on Hudson Bay today derive only limited benefit from local agricultural produce, despite modern advances in plant breeding and the

1. "Instructions for Henry Sergeant Esqr. [April 27, 1683]," in E.E. Rich (ed.), Copy-Book of Letters Outward &c Begins 29th May, 1680 Ends 5 July, 1687, Toronto, 1948, p. 77.

implementation in Canada's northland of an increasingly sophisticated agricultural technology.^{2.} That the bleak northern shores of Hudson Bay could have been viewed at one time as a suitable environment for European agriculture is hardly credible from the standpoint of our contemporary knowledge of the Bayside. Yet three hundred years ago men of the Hudson's Bay Company seriously considered the arctic and subarctic coastlands of their new colony of Rupert's Land to be amenable to mid-latitude agriculture.

Shortly after the Rupert's Land trade was begun, the Company directors in London commenced to urge their servants to till the land at the new trading establishments on the Bay. What environmental information, if any, prompted the Company's

2. Gardening at contemporary arctic and high subarctic settlements in Canada is encouraged by the high cost of transport, together with deterioration and occasional spoilage in transit of fresh fruits and vegetables. It is largely confined to leaf and root crops and especially those with a high vitamin C content. The vegetables grown are varieties that have been selected for characteristics such as rapid growth, cold-resistance, early maturation and vitamin content. For a list of vegetables of this nature and their characteristics, see F.S. Nowosad et al., An Evaluation of Vegetables Grown in the Eastern Arctic Region of Canada, Canada Dept. of Agriculture Special Pub. 1336, Ottawa, 1967, pp. 18-25. Gardening of this nature, especially if it is extended to pulse and vine crops, is successful only with intensive soil treatment and the use of protective devices such as greenhouses, crop shelters and plastic mulches.

first attempts at agriculture, is a matter of speculation. Unfortunately, almost nothing can be learned of circumstances of this nature during the period of initial settlement on the Bay. With the exception of a singular report in 1682, no Company letters or reports from Hudson Bay during the seventeenth century have survived. Relatively little, in consequence, is known of the Company's overseas activities at this time. More important, the years 1675-79, which saw the initial implementation of agriculture at the Bayside settlements, are characterized by an almost complete absence of documents in the Company's archives. As a result, the following reconstruction of the beginnings of agriculture on Hudson Bay relies almost wholly upon source materials other than direct communications from Rupert's Land.

A. THE FIRST AGRICULTURAL EXPERIMENT

The first attempt to cultivate the Company's lands occurred in 1671, when men of the Company's maiden expedition to Rupert's Land conducted a simple agricultural trial along

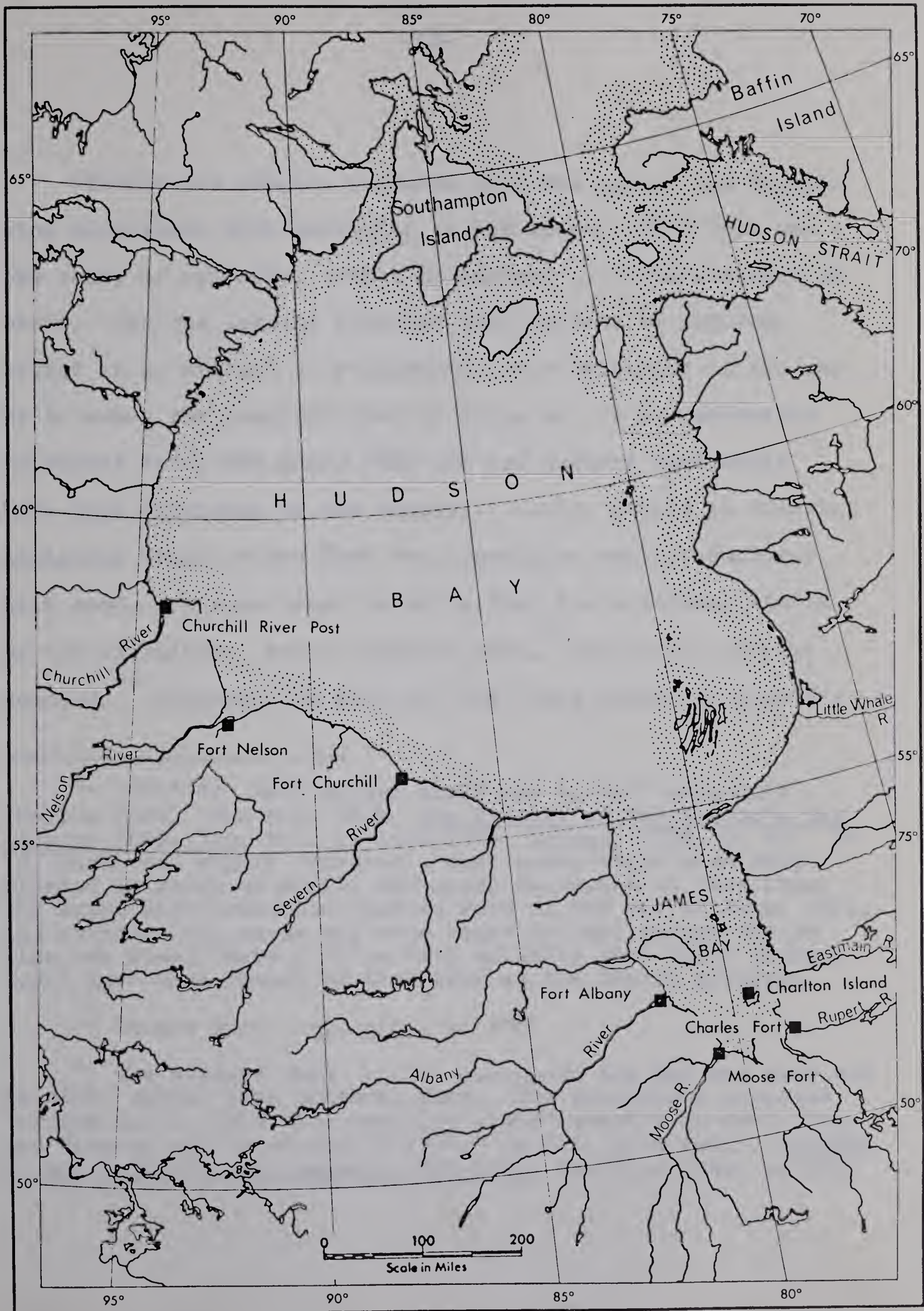
3.
the shores of Hudson Bay. Little is known of this initial endeavour, save for a brief entry in the journal of Thomas Gorst, who was charged with the accounts of the voyage. Gorst wintered with the expedition in the estuary of the Rupert River, alongside which, in spring, a small garden was planted at the newly constructed Charles Fort (Fig. 2). In the entry dated March 31, 1671, Gorst wrote: "Wee sowd Peas & Mustardseed which came up well enough for ye time wee stayd there & no doubt but all sortes of rootes would have grown very well if
4.
Wee had been furnished with seed."

3. It should be noted that Douglas Leechman has claimed an earlier planting on Hudson Bay along the Rupert River in the spring of 1669. During the pre-charter voyage of the Nonsuch in 1668-69, the crew wintered in the Rupert estuary where, according to Leechman, "As soon as the ground could be worked in the following spring, garden beds were prepared and vegetable seeds were sowed." He also notes that "They had brought some hens and pigs with them." The author has communicated with Dr. Leechman on this matter and it is apparent that the latter has confused the voyage of the Nonsuch with that of the Wivenhoe, whose crew planted at the same site two years later. See D. Leechman, "I Sowed Garden Seeds," The Beaver, Winter, 1970, p. 25.

4. Thomas Gorst, "Extract of Mr. Thomas Gorst's Journall in the Voyage to Hudson Bay begun 31th day of May 1670," in Grace Lee Nute, Caesars of the Wilderness, New York, 1943, Appendix 2, p. 290. Gorst's "journal" is clearly an amalgam of diary and reminiscences. The entry quoted above falls into the latter category. Although E.E. Rich, who has based his account of this expedition upon Gorst's comments, writes that "in March and April garden seeds were sown and reaped at Charles Fort," there is no indication in Gorst's journal
(cont'd)

Figure 2

HUDSON'S BAY COMPANY POSTS TO 1713



Whether the Company intended that the men of the expedition experiment with gardening is not known. That this was the case, at any rate, cannot be assumed from the presence of seeds. Had the Company directed that gardens be planted, either in an attempt to supplement the subsistence of the men, or to assay the possibilities of doing so, it is reasonable to expect that seed other than pea and mustard seed would have been furnished by the Company. Gorst, albeit in somewhat ambiguous terms, noted that the expedition was not supplied with seed. It seems most probable that the provision stores of the expedition, which included peas,⁵ and most probably mustard,⁶ afforded the seed for the first garden in Rupert's

4. (cont'd) that garden stuff was in fact reaped at Charles Fort. See E.E. Rich, The History of the Hudson's Bay Company 1670-1870, Vol. I: 1670-1763, London, 1958, p. 67. It is, moreover, highly improbable that seeds would have been planted in March or April, let alone harvested at that time. The expedition abandoned Charles Fort at the end of June, 1671, and although the seeds may have "come up well enough for ye time wee stayd there," it is very unlikely that their produce would have been reaped by that time at the Rupert estuary.

5. Thomas Gorst, op. cit., p. 288.

6. The mustard used by the Company on the Bay was sent out in seed, rather than crushed, form. The provisions proposed for the Bay in 1674, for example, listed mustard in seed form. See "Excise office 28 aprill 1674," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company, 1671-1674, Toronto, 1942, p. 101.

Land.

Gorst also recorded that "We kept theire [Charles Fort] some hens & hoggs which lived and did well enough."^{7.} There is no indication that these animals were sent to the Bay with a view to commencing animal husbandry. Rather, they appear to have accompanied the expedition as a source of fresh provisions,^{8.} a practice not uncommon at the time.

The possibility of raising food by the Bay was not, it seems, an official concern of the Company's first expedition, but was undertaken solely at the initiative of the men on the Bay. Whatever the case, the advent of the Company's servants began the European attempt to extend agriculture into the northwest quadrant of the continent, a process which has persisted over the centuries, and which is still in evidence along the agriculture frontier today. Before it could be ascertained whether the garden stuff at Charles Fort, which appeared to be coming on so well, would in fact mature, the Company's expedition sailed for England. It is tempting to speculate that the optimistic report in Gorst's journal, both

7. Thomas Gorst, op. cit., p. 290.

8. The hens and hoggs were probably supplied as douceurs for Radisson and Groseillier. This is likely as goats and hogs were purchased for the two Canadians for the Company's 1672 expeditions. See "Incident Charges of the Third Voyage to Hudsons Bay . . .," in E.E. Rich (ed.), op. cit., p. 199.

as concerned livestock and the potential for root crops, did not go unnoticed in London. One scholar has suggested that later exhortations on the part of the Company for systematic food production on the Bay were prompted by the comments in the journal of Thomas Gorst.⁹ Whatever the effect, it would not have been unreasonable for the Company's directors in England, subsequent to Gorst's observations, to expect some sort of food production from an area whose latitude is approximately that of London.

B. PERMANENT SETTLEMENT: THE STIMULUS TO AGRICULTURE

The expedition that Gorst chronicled had been sent out with a view to establishing permanent settlement in Rupert's Land. But Bayly, who was in command of the venture, had been unable to persuade a sufficient number of men to remain with him in the country. His return to England with all his men in 1671, in consequence, was a disappointment to the Company. The Company, especially in view of the possibility of French competition, regarded permanent settlement as desirable to

⁹. E.G.R. Taylor in Introduction to E.E. Rich (ed.), Copy-Book of Letters Outward &c Begins 29th May, 1680 Ends 5 July, 1687, Toronto, 1948, p. xxxiv.

consolidation of its interests on the Bay. Sometime after his return, Bayly was called before the Company's Committee to express his views on settlement and trade on the Bay. In the following statement he clearly outlined the two alternatives available to the Company at this early juncture in its Rupert's Land trade:

"that in the case the Comittee Shall not thinke fitt for any Settlement to bee made in the Countrey one Ship alone may Serve to bee imployed, otherwise thirty men at least to be imployed for Stayeing in the Countrey in respects to mortality: & another Ship bigger then the Wivenho to bee added in hir Stead to the Prince Rupert, or else another Small vessell of 30: or 40 tuns to bee added to them both: & that the place of Settlement may bee at Moussebae [i.e. the Moose River estuary]" ¹⁰.

The Company, fearful of the French, subsequently ordered at a General Court that the place of trade be the "Moussebee," resolving that the Wivehnoe "bee Sent thither with Some ¹¹ bricke & nayles to Serve for erecteing the forte." For some reason the Wivenhoe was not sent out in 1672 and, as in the case of the previous two voyages, the ships sailed to the Rupert River. Bayly, however, was re-appointed overseas

10. "At a Comittee of the Adventurers to Hudsons bay the 16th January 1671[Old Style] . . .," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company 1671-1674, op. cit., p. 19.

11. "At a gennerall Courte the pmo. february 1671 [O.S.] . . .," in ibid., p. 22.

Governor and carried with him instructions to build on the
12.
Moose.

In the course of the previous voyage, both Bayly and Radisson had traded at the Moose River. It was described as a "broad River" that was "well furnished with streight & tall Trees of Pine & Spruce fit for Masts, some of them being near 60 inches circumference."^{13.} In the summer of 1673, Bayly again proceeded to the Moose where he concluded a treaty with the Indians and constructed a temporary building on Hayes (or Factory) Island. This is the site shown on Thornton's 1685 map of the Company's settlements (Fig. 3.). The building, in A.S. Morton's view, was located about one mile from the western end of the island.^{14.}

The French, in the meanwhile, were endeavouring to establish direct trading contact with the Crees in the north. Moreover, they had learned as early as 1670 of the English incursion into Hudson Bay and regarded this advance into "the Bay of North Canada," as it was known by the colonists on the

12. E.E. Rich, Appendix G, in ibid., p. 210.

13. Thomas Gorst in Grace Lee Nute, op. cit., p. 290.

14. A.S. Morton, A History of the Canadian West to 1870-71, Toronto, 1939, p. 73.

15.
St. Lawrence, as an act of aggression. Accordingly, Intendant Talon of New France organized an expedition under the Jesuit, Father Charles Albanel, to reconnoitre a route to the Bay. In 1671 Albanel proceeded up the Saguenay, crossed the height of land to Lake Mistassini and the following summer encamped in the deserted buildings at Charles Fort. Albanel and his voyageurs left for the St. Lawrence prior to Bayly's arrival in the ships of 1672. This intrusion of the French was not without effect upon the Company's subsequent trade. According to Oldmixon, "The French us'd many Artifices to hinder the Natives trading with the English; they gave them great Rates for their Goods, and oblig'd Mr. Bailey to lower the Prices of his, to oblige the Indians, who dwelt about Moose River, with whom they drove the greatest Trade." 16. Oldmixon further remarked:

"The French, to ruin their Commerce with the Natives, came and made a Settlement [Lake Mistassini] not above 8 Days Journey up that River [Rupert River], from the Place where the English traded. 'Twas

15. E.G.R. Taylor in E.E. Rich (ed.), op. cit., p. xiv.

16. John Oldmixon, "The History of Hudson's Bay ... Being the last Chapter of Volume I of The British Empire in America ... (London, 1708)," in J.B. Tyrrell (ed.), Documents Relating to the Early History of Hudson Bay, Toronto, 1931, pp. 386-87.

therefore debated, whether the Company's Agents should not remove from Rupert's to Moose River, to prevent their Traffick being intercepted by the French." 17.

In the deliberations that followed, Groseillier opposed moving to the Moose, being of the opinion that a coasting trade could be conducted there using the shallop from Rupert River. This view had the merit of economy. Bayly, however, chose to make Moose his main settlement in the summer of 1674. From the point of view of carrying out the Committee's instructions, and more important, of evading to some extent the effects of French competition, Bayly's decision was a wise one. Moreover, the maritime approach to Moose was safer than that to Charles Fort, while the drainage basin of the Moose was larger and more productive of furs. Bayly wintered at Moose River in 1674-75, at which time continuous settlement at the Moose estuary was begun. Thus, in re-occupying Charles Fort and founding a new settlement on the Moose, Bayly fulfilled the Committee's intent, and it is from 1672 that permanent English settlement on Hudson Bay can be dated.

17. Ibid., p. 387.

There is no indication, however, that Governor Bayly was provided with seeds or livestock to assist him in establishing these settlements. Save for the livestock sent out as douceurs, there is no evidence of either in the cargoes of 1672. No ship, moreover, was sent out in 1673. From this absence, it can only be assumed that the Company, in its endeavour to initiate permanent settlement in Rupert's Land, gave no serious thought to enlisting the aid of agriculture. If the Committee had taken notice of the comments in Gorst's journal, then, it did not consider them of sufficient import to act upon immediately. Not until the activities of the French on the Bay were learned of in London did this situation change.

Intelligence of the French activities in the hinterland of the Bay did not reach London until the return of the Company's ships in 1673. From the preparations that were made in England following receipt of this intelligence, it is obvious that the Company intended to respond to this threat by strengthening its physical position on the Bay. As John Oldmixon was wont to remark, "there's nothing so terrible to a Monopolizer^{18.} as an Interloper." In the case of this alien intrusion,

18. Ibid., p. 400.

the Company's charter offered little in the way of protection, and its only defence, short of war, was to entrench itself at the Bottom of the Bay.^{19.}

At this early juncture a slight, but significant, severance in the Company's ties with England occurred. The Company's trade, which hitherto was prosecuted by ships' crews wintering over in the river mouths, was now to be conducted at settlements commanding these sites. Having concluded that its settlements must be manned on a continuous basis, the Committee had then to contend with the problem of maintaining them. At the same time, it was freed from the necessity of viewing its trading operation solely as a logistical extension of the mother country. It was also, under immediate physical pressure from the French, compelled to consider ways in which viable settlement might be achieved on the shores of the Bay. For the voyage of 1674, in consequence, thirteen men were signed on to remain in the country for a three year period.^{20.} Venison, fish and fowl had proven useful in supplementing the larder of

^{19.}The term Bottom of the Bay is employed in the period literature to designate James Bay and is used in this context here.

^{20.} "[At a Committee] 3 June 1674," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company 1671-1674, op. cit., p. 118.

English sailors during previous sojourns on the Bay. Now, fish nets were sent to assist in supplementing the European fare of the men contracted to stay in the country.^{21.} For the same reason, the Company sent out seeds of the staple grains of England. On May 16, 1674, it was ordered by the Committee that there be provided for their establishments on the Bay "a bushell of wheate, & of rye, barley & oates, or a barrell of each in caske."^{22.} From the amount of seed sent, it would appear that the Company expected, in the event that the experiment succeeded, some return for its efforts.

The Committee also ordered that the ships be furnished with "Such sorts of Garden Seeds as the governour Shall advise."^{23.} A new Governor, William Lydall, was appointed to replace Bayly, who was still in the country. No information is available on the garden seeds he was to order for the Bay. It might be noted that Lydall had "made many Voyages to & from Russia & Lived many yeares therein that Countrey."^{24.} Perhaps the

21. "[At a Committee] 29th May 1674," in ibid., p. 113.

22. "At a Subcomittee the 16 may 1674," in ibid., p.108.

23. Loc. cit.

24. "At Mr. Walker's Janua. 1673 [O.S.]....," in ibid., p.74.

new Governor had some experience of agriculture in that country which afforded useful knowledge in advising on this matter. Whatever his influence, however, it was short-lived, for Lydall returned from the Bay the following year, "finding^{25.} that afares thare, did not pleas him." Bayly, who had been unable to return to England in 1674, stayed in the country as overseas Governor.

From later evidence, it is apparent that the cereal seeds sent out in 1674 did not succeed. Nothing is known about the garden seeds. It is also evident that, despite this initial failure, the Company continued to send out seeds with a view to experimenting with, and hopefully developing, agriculture at its settlements on Hudson Bay. The Company's persistence in this respect was largely motivated by the high costs of provisioning its servants in the country. Provisions comprised a significant part of the Company's fixed costs of operation. Labour was very cheap, but some food items appear to have been disproportionately expensive. E.E. Rich, for example, has pointed out that "The average price of wheat in England during the seventies of the seventeenth century was a good deal higher in sterling than it was in 1914- 42s. 2d. a quarter

25. E.E. Rich in ibid., p. 74n.

against 34s. 11d. - a fact not generally realised." 26.

Although it is almost impossible to gain a comparative impression of the Company's operating costs, it is important to point out that foodstuffs, in contrast to other relatively high fixed costs, such as insurance, wages, ship rentals and, of course, the cost of trade goods, comprised the only major item for which there existed a possibility of reduction in cost following the advent of permanent settlement. It appears to have been this situation, rather than any environmental information, that initially prompted the Committee to consider agriculture as a potentially profitable enterprise at the new settlements. The Committee's concern about the costs of provisionment, as well as their views on how these costs might be reduced, are well summarized in the following instructions to John Nixon, who replaced Bayly as overseas Governor in 1679:

"Wee do most earnestly recommend to you the endeavouring to ease us of the great charge wee are at in making provisions of all sorts for the Bay. This is what hath always been directed & pressed before you went, but wee could never find our expectations in any measure answered therein. But wee hope it will be done by your extraordinary care & ingenuity wch. wee do assure you will be a very acceptable service to the Company."

26. Ibid., p. lxv.

"Wee have sent you [at Moose Fort] severall sorts of seeds wch. you will find in the Invoice as wee have formerly done to enable you to make the Experiments, And wee doubt not but Fish & Fowl may in the proper season be catchd in considerable quantities and kept, salted & dried for the relief of our men." 27.

From the instructions sent to Nixon, it is apparent that the Hudson's Bay Company, from the time of the first seed shipment in 1674, had been endeavouring to develop some means of rendering its settlements self-supporting. It is also apparent that little or no headway had been made toward achieving this objective by 1680. Still, the Committee regarded reducing the costs of provisionment as highly desirable. The new Governor, in consequence, was adjured to give this matter his careful attention. Special consideration was to be accorded fishing and hunting, while he was to continue the agricultural experiments begun by his predecessors.

While the experiments with agriculture were being conducted at Moose, the Company was active elsewhere on the Bay. By this time a third settlement had been established on the Chichewan or Albany River. The details of its founding are obscure. At best it can be said that "a house of some strength" had been

27. "Governor Nixon's Instructions 29th may 1680," in E.E. Rich (ed.), Copy-Book of Letters Outward &c Begins 29th May, 1680 Ends 5 July, 1687, op. cit., pp. 8-9.

built there prior to Governor Bayly's recall to England in
28.
1679. Moose was still the main factory, while Rupert

River was still being maintained. Isinglass, in which the
Company was strongly interested, had been discovered at
Rupert River. Although nothing profitable materialized from
the isinglass discovery, it kindled interest in a post that
was being kept up mainly as "a kind of Outwork to prevent
any inroad of the French upon that part of the East Main." 29.

Chief among the Company's aims at this time, however, was
securing the trade of the West Main of the Bay. From the
time the Company was founded, the estuaries of the Nelson and
the Severn had been considered essential to controlling the
Bayside trade. By 1680, settlement of the West Main was seen
as a matter of extreme urgency. Nixon was informed that "wee
recommend to your care the settling of Factories at Port
Nelson and New Severn, And wee judge it to be of great moment
to our security that it be suddenly put into execution. For
we are informed there are designs already on foot of interlopers." 30.

28. E.E. Rich in ibid., Appendix A, p. 345.

29. "Governor Nixon's Instructions 29th may 1680," in
ibid., p. 5.

30. Ibid., p. 6.

John Thornton's 1685 Chart of Hudson Bay



Made By John Thornton at the Signe:
of the Platt in the Minorca:
Anno 1685

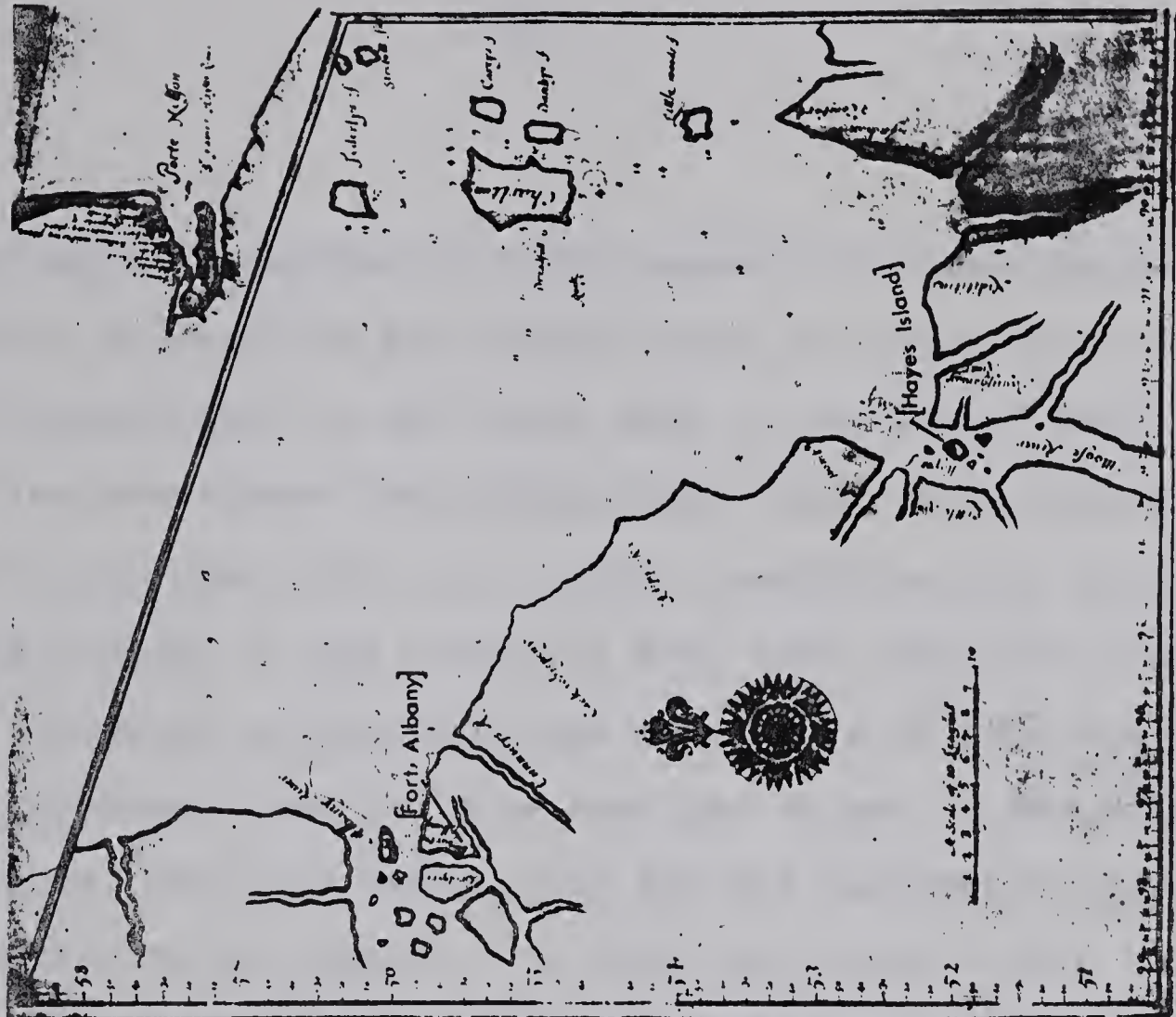


Figure 3

Source: E.G.R. Taylor in Introduction to E.E. Rich (ed.), Copy-Book of Letters Outward &c Begins 29th May, 1680 Ends 5 July, 1687, Toronto, 1948, facing p. xi.

Not until the autumn of 1682, however, did the Company establish a foothold on the Nelson River, at which time a post was established on the north bank of the Nelson some seven miles downstream from Flamborough Head. The Company's fears of interlopers were not without foundation for, shortly after the arrival of the Company's men, they found the French freshly ensconced on the Hayes and an expedition from Boston building upstream from the site they had chosen on the Nelson. Subsequently, both the English and the New Englanders were taken captive by the French. In 1683 the Company again built on the Nelson, this time on the south shore near Walker's Point shown on Thornton's map (Fig. 3.). The following year the Company established itself on the Hayes on the site of the first York Factory, or Hayes Fort, as it is shown on Thornton's map.^{31.} This site was occupied by the English until it was captured by the French in 1694. Settlement on the Severn was finally achieved the year after, or in 1685, when Churchill Fort was established at its mouth. Thus, just as threats from interlopers had caused the Company to settle its lands, so, in the early years of permanent settlement on the Bay, they were

^{31.} For a thorough discussion of the different posts at the Nelson-Hayes estuaries at this time see E.E. Rich in ibid., Appendix A, pp. 363-69 and J.B. Tyrrell, op. cit., pp. 1-34.

instrumental in the expansion of the Company's settlements in terms of both number and location.

C. A SCHEME FOR COLONIZATION

At the same time as the Company was establishing additional trading settlements, ambitious plans of potential consequence to colonization and agriculture on the Bay were being mooted by its directors in London. These plans had their origin in Governor Bayly's proposal to centralize the Company's Bayside entrepot functions at Charlton Island in James Bay. Little in way of documentation has survived to shed light on the origin of this idea. Bayly, however, had been forced ashore on Charlton Island in the course of his coastal explorations in the summer of 1674. Sometime after that, he apparently recommended that the island be employed as a rendezvous for the ships from England. In writing to Governor Nixon following the change in command on the Bay in 1679, the Governor and Committee remarked:

"Wee do judge by the situation of Charlton Island, that no place is so convenient as that for the Rendezvous from our severall Factories to attend the arrivall of our Ships from hence, And we hope before this comes to you, a good large dry substantiall Warehouse will be there erected to receive the Cargo

wee send you, as it was agreed to be, before Mr. Bailly left you [i.e. in 1679]." 32.

A Warehousekeeper was appointed for Charlton Island,^{33.} while the warehouse itself, which Nixon described as "20 foot square, and two stories, and a halfe high," was completed^{34.} in the late summer of 1681.

The main reason for establishing the base at Charlton Island was to ensure that the Company's ships completed the return trip to England within a single navigation season. On Bayly's advice, apparently, it was thought that a depot on the island would allow the vessels to tranship their cargoes and clear the Bay with less danger of being caught in the ice of late autumn. The furs and supplies were to be transported between the warehouse and the factories at the Bottom of the Bay by the smaller craft, or sloops, that were kept in the country.

32. "Governor Nixon's Instructions 29th may 1680," in E.E. Rich, op. cit., p. 8.

33. "[Governor and Committee to] Mr. Thomas Phipps, London, 21st May 1680," in ibid., p. 21.

34. "Report to the Governor and Committee by John Nixon, 1682," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company, 1679-1684, First Part, 1679-82, Toronto, p. 239.

During the first season of operations the Prudent Mary, which was to make the journey in a single season, was wrecked shortly after leaving Charlton Island. The following year, the Diligence was late in arriving, and its crew was forced to winter over on the island. By this time, Nixon had come to view the arrangement as entirely unsatisfactory. For one thing, he felt that in time of war the island could be easily taken, remarking "how easie would it be for one of your discontented servants to pilot a man of warr into Charletone island there to surprise us and all the bever, and having taken the ship, and your governour, they may at ane easie rate have the country surrandered to them."^{35.} Among various other reasons for dissatisfaction, Nixon emphasized the difficulty of communicating with the mainland. In the autumn, fog and adverse weather conditions made it hazardous to transport the goods to the factories. In spring, on the other hand, the ice was much later in clearing from Charlton Island than from the river mouths at the Bottom of the Bay. As far as Nixon was concerned, "one may as soon have intelligence from East-india to London, as from the maine to Charlton Island."^{36.}

35. Ibid., p. 245.

36. Ibid., p. 243.

Nixon was recalled in 1682 and the Committee, far from implementing his recommendation that Charlton Island be abandoned, ordered his successor to constantly "keepe some hands upon Charleton Island, where the yearly rendezvous of our shippes from hence and all the Factories is to be." ^{37.}

Henry Sergeant, the new Governor, was also instructed to build a fort on the island, and was admonished to keep the warehouses in good repair. ^{38.} And finally, he was to "contrive that those who shall winter there doe spend their time as much for our profitt as may be, either in cultivateing the land, in fishing & making oyle, or in makeing pott ashes, or else you may judge for the service of the Company, we intending as soone as may be to plant a Colloney there." ^{39.}

The Committee at this time was bent upon settling Port Nelson and New Severn and, rather than abandon the depot at Charlton Island as Nixon had proposed, elected to make Charlton Island the nexus of an expanded trading operation. The Committee had been forewarned that the island was vulnerable to attack and, at the time of drafting these instructions, they

37. "Instructions for Henry Sergeant Esqr. April 27, 1683," in E.E. Rich (ed.), Copy-Book of Letters Outward &c Begins 29th May, 1680, Ends 5 July, 1687, op. cit., p. 76.

38. Loc. cit.

39. Ibid., pp. 76-77.

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had strong reason to believe that an interloping expedition^{40.} was forming in New England. Rather than abandon the island, therefore, they ordered fortifications to be built and warned Sergeant to keep the island occupied at all times. They also contemplated establishing a colony on the island. Although there is no information in the Company's records to indicate^{41.} how serious it was in this intention, there can be little doubt that the plan to establish a colony on Charlton Island was part of the Company's overall design to strengthen its position on the Bay, and on Charlton Island in particular.

A settlement on Charlton Island, although it would have contributed to the security as well as the functioning of the depot, would also have imposed considerable stress upon the Company's finances. Unless some commercial enterprise other than the fur trade, for which there was no possibility on Charlton Island, could be developed, there would be little point in planting a colony. It was undoubtedly with this in mind that, prior to proceeding with their plans for colonization, the Committee ordered Sergeant to ascertain the possibilities of developing any trade that the island might support

^{40.} Ibid., p. 77.

^{41.} E.E. Rich, The History of the Hudson's Bay Company, op. cit., Vol. 1, p. 45.

and which, in his opinion, would be profitable to the Company.

Although little or nothing was known in London of the agricultural qualities of the land where the Company had settled, the Committee by this time had come to view local food production as a matter of some economic significance. Like fishing, agriculture on Charlton Island would be of assistance in maintaining the depot and the fort on a year round basis. If successful, it might furnish the basis for a colony which in turn could provision the trading settlements from this central entrepot. There is some indication, moreover, that Charlton Island at this time was thought to be more suitable for habitation than the mainland. This view, in addition to economic and strategic considerations, may well have influenced the Committee's plan to establish a colony there. The appearance of the island, as well as the circumstances under which it might have acquired this reputation, were described by John Oldmixon:

"Charlton Island is a light white Sand, cover'd over with a white Moss, full of Trees, Juniper and Spruce, tho not very large. This Isle affords a beautiful Prospect to such as make it in the Spring, after a long Voyage of 3 or 4 Months, in the most dangerous Seas in the World ... To see one Day the Shoar of the West Main bare, the Mountains cover'd with Snow, and Nature looking like a Carcass frozen to Death; and the next to behold Charlton Island spread with Trees, and the Branches making as it were a green Tuft of the

whole, is a Surprize, that must give the greatest pleasure after the Fatigues of an intollerable Winter Voyage." 42.

However, Captain Thomas James, who wintered on Charlton Island in 1631-32, observed few physical differences between Charlton Island, and the neighbouring islands and coast of the Eastmain. It should also be noted that John Oldmixon's description of the island appears to be a paraphrase of James and most probably derived in part from James' account of his voyage, which was published shortly after the letter returned to England.

James described Charlton Island as follows:

"This Island, and all the rest, as likewise the Main, is a light white Sand, covered over with a white Moss, and full of Shrubs and low Bushes, excepting some bare Hills and other Patches: In these bare Places the Sand will drive with the Wind like Dust. It is very full of Trees, as Spruce and Juniper, but the biggest Tree I saw was but a Foot and a half in Diameter" 43.

If Charlton Island did in fact appear more inviting for habitation than other islands in the Bottom of the Bay, this may been because it was perhaps more heavily wooded than most.

42. John Oldmixon in J.B. Tyrrell (ed.), op. cit., pp. 379-80.

43. Thomas James, quoted in R.B. Bodilly, The Voyage of Captain Thomas James for the Discovery of the North-West Passage, 1631, pp. 172-73.

When James was on the island, however, a fire started by one of his men rapidly spread and drove the English off the island. Returning several days later for a final inspection of the island, James noted that the fire was still burning and had "consumed to the Westward sixteen Miles at least, and the whole Breadth of the Island."^{44.} What impact the fire might have had upon the vegetation seen by Bayly some fifty years later is almost impossible to assess. Probably the most important geographical factors that prompted the initial proposal to establish a depot on the island were its unrivalled size among the islands of southern James Bay, its proximity to Moose and Rupert River and "a most excellent fine Harbour."^{45.}

No information is available on any attempts to develop industry on Charlton Island. The Committee sent "severall sorts of seeds and graynes" to Governor Sergeant in 1683,^{46.} but whether an experiment was conducted on the island is not known. Nothing, moreover, has survived either in the Company's

^{44.} Ibid., p. 171.

^{45.} Ibid., p. 73.

^{46.} "Instructions to Henry Sergeant Esq. [April 27, 1683]," in E.E. Rich (ed.), Copy-Book of Letters Outward, op. cit., p. 77.

minutes or in any known correspondence to indicate what befell this ambitious plan to establish a colony in Rupert's Land.^{47.}

As E.E. Rich has pointed out, if the colony was indeed a serious proposal, "it ended with the inauspicious experiment of allowing Governor Sergeant to take his family to the Bay."^{48.} Sergeant's son, wife, a lady companion and a Mr. John French, "Minister of the Bay," were sent out when the Committee disclosed its intent to colonize. The women, however, proved troublesome at the Company's factories, and the Committee subsequently barred women from the settlements on the Bay. Thus ended the Committee's project to establish a colony on the Bay. So too ended a possible solution to the Company's provision problem. Although the fort was never constructed, Charlton Island continued to function as an entrepot until 1686 when, for virtually the same reasons that Nixon had offered four years earlier, the Committee ordered that it be deserted, being of the opinion that:

"If a warr happen with France or Holland, there being no fortification upon the place, all our Goods may be easily surprized, that the time our men are there, is when there is most danger of any attempt by the French

^{47.} E.E. Rich, The History of the Hudson's Bay Company, op. cit., Vol. 1, p. 145.

^{48.} Loc. cit.

upon our Factories, which by this meanes are very much weakned, that there is a great consumption & expence of English Provisions all the while they continue on that Island & that our Goods by unladeing and relading there are frequently Damaged ... it is much more convenient & safe to send our Goods to Moosebee River, where no vessell of Considerable force can attack our Fort & from thence convey them to the two other Factories." 49.

D. AGRICULTURE TO 1682

Although the Committee abandoned what hopes it had for establishing a colony in Rupert's Land, it continued to explore the possibilities of raising food at the trading settlements. These endeavours, which initially were confined to arable agriculture, were soon followed up with experiments in animal husbandry. In 1680 the Committee announced its intention to send hogs to the main settlement at Moose Factory. Nixon was informed that hogs might be propagated there with little difficulty, for they were "hardy and will live where some Creatures cannot."^{50.} The island location of the factory would ensure that the hogs would not fall victim to beasts of prey,

49. "[Governor and Committee to] Mr. John Bridgar, London 20 May 1686," in E.E. Rich (ed.), Copy-Book of Letters Outward, op. cit., p. 182.

50. "Governor Nixon's Instructions 29th may 1680," in ibid., p. 9.

although Nixon was advised to see that his men hunted up and down the river to prevent wolves and other animals from crossing on the ice of winter. With precautions of this nature, the Committee was of the opinion that the factory "might be in great measure supplied wth. that sort of provisions ...^{51.} and we therefore desire you to be diligent therein." The following year, two hogs and two goats were sent to Moose River "in hopes they will increase in the Country & be of use & comfort to our people wch. is a thing that deserves your utmost care as for the Good of the Factory as for the ease^{52.} of the Compa. in the buisnesse of Proviissions."

Thus, within little more than a decade of its inception, the Hudson's Bay Company carried a variety of grain and garden seeds, as well as a few livestock, to the bleak, Bayside margins of their chartered domain. These were to form the basis of an agriculture whose role the Governor and Committee viewed as two-fold: to reduce the expenses of importing foodstuffs from Europe, and to safeguard the health of the Company's servants at the factories. Neither of these objectives was

51. Loc. cit.

52. "[Governor and Committee to] Governor Nixon June 1681," in ibid., p. 29.

to be completely realized while the Company remained by the Bay. Nevertheless, agriculture by this time had become a permanent, if feeble, feature of the few English settlements on Hudson Bay.

Of the livestock sent to Hayes Island in 1681, the goats died, and although no specific information is available as to the fate of the hogs, Governor Nixon reported in 1682 that their consumption of provisions had been greater than their worth.⁵³ The hogs had been given a trial and apparently judged ill-suited to the environment and economy of the post. However, Nixon felt that other types of livestock might thrive by the Bay. He suggested sheep, and particularly those from the Orkneys or Shetland, whose heavy coats would withstand the winter's cold and the flies of summer. In this connection he requested that five young country lads be sent out yearly to facilitate hay making and tend the livestock. The extra hands would also be employed gardening and would enable the Governor to ascertain "wither corn [i.e. grain] will growe or not."⁵⁴

53. "Report to the Governor and Committee by John Nixon, 1682," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company 1679-1684, First Series, 1679-1682, op. cit., p. 250.

54. Ibid., p. 251.

Although the wheat, rye, barley and oats previously sent out had failed, Nixon, who was apparently familiar with the harsher and more unproductive parts of Scotland, remained optimistic about cultivating by the Bay. He requested buckwheat seed, which he felt would succeed by virtue of its quickness of growth.^{55.} Although in 1683 buckwheat seeds,^{56.} followed by hemp seeds in 1684,^{57.} were sent to the Bay, neither of these came to account.^{58.} Moreover, there is no indication that the sheep were sent to the Bay as Nixon requested.

The only endeavour that yielded to some extent, perhaps from the very beginning, was kitchen gardening. The most detailed list of the seeds being sent to the Bay at this time is available for 1682, at which time garden seeds were consigned to the Company's settlements as follows:

"stores for Hayes Island [Moose Fort] as Turnip seeds, lettuce, radish, spinage, colworts & mustard seeds
Stores for Chychewan [Albany Fort] as a peck mustard

55. Loc. cit.

56. "Att a Committee 25 Aprill 1683," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company 1679-1684, Second Part, 1682-1684, Toronto, 1946, p. 101.

57. "Shipments Outwards, 1684," in ibid., Appendix B, p.295.

58. E.G.R. Taylor in Introduction to E.E. Rich (ed.), Copy-Book of Letters Outward, op. cit., pp. xxxiv-v.

seeds

Stores for Rupert River [Charles Fort] as muster seeds, letice, Radish & Colworth seeds etc

Stores for Port Nellson [York Fort] as 1 1/2 peck mustard seeds." 59.

Even here, however, the results were very modest. The only garden productions mentioned by Nixon were turnips and coleworts, which he described as "a great refreshing to the men, more especiallt to those who are neuely come from the sea, being a great many of them seek of the scurvy." ^{60.} Nixon hoped that with greater attention to the gardens at Moose ^{61.} "3 or 4 hogs-heads of turnips, besides coleworts," might be produced annually.

Thus, the Company's first trials at agriculture proved all but a failure. Only a very limited garden culture, based upon one or two hardy vegetables, and of some assistance in warding off scurvy, had been developed after a decade of con-

59. "Sundry Accts. ... to Edmond Bury," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company 1679-84, Second Series, 1682-84, op. cit., p. 6.

60. "Report to the Governor and Committee by John Nixon, 1682," in E.E. Rich (ed.), Minutes of the Hudson's Bay Company 1679-1684, First Series, 1679-1682, op. cit., p. 247.

61. Loc. cit.

tinuous settlement. What little had been accomplished, moreover, was confined to the Bottom of the Bay where the physical conditions for agriculture, although rigorous, were superior to those elsewhere along the dreary northern coast where the Company was planning to settle.

Still, Nixon had reported encouragingly on the possibility of grain and livestock production on the Bay, while the few vegetables he had managed to raise at Moose had proven most welcome commodities to the men at the factory. The Committee at this time appears to have had little doubt about the suitability of the Bayside for agriculture. Nixon's agricultural endeavours, they remarked, were not attended "with the success we expected."^{62.} Nixon's successor, in consequence, was urged to use his "utmost skill and industrey for the relieveing us from the great expence we have been att in sending provissions into the Countrey which we beleewe may be done if you appley your selfe to trey in all places where we ar settled what the earth will bring forth & that you may make

62. "Instructions for Henry Sergeant Esqr. [April 27, 1683]," in E.E. Rich (ed.), Copy-Book of Letters Outward, op. cit., p. 77.

the experiments we have furnishd. you wth. severall sorts of seeds and graynes & will continue to doe soe from yeare to yeare & shall thinke it a very meritorious worke if you effectually prosecute it." ^{63.} Thus, although little in the way of results had been achieved, the Committee remained optimistic about raising food by the Bay. It continued to press its Governors to this task, stressing the benefits that would accrue to both the Company and the men on the Bayside. To this end, the experiments were extended to the new factories on the West Main. ^{64.} They remained a small-scale endeavour until the Company's affairs in Rupert's Land were suddenly interrupted by political developments.

63. Loc. cit.

64. In 1684, for example, turnip seeds and a bushel of hemp seeds were sent to Port Nelson. See H.B.C., Invoice Books of Shipments to Hudson Bay, 1684-1801, A 24/1, fol. 12.

CHAPTER III

WARTIME AGRICULTURE

"The Company always enjoyn'd their Governours to save the great Charge they were at in sending constant Supplies of Provisions, by planting Corn and other Grain there. But alas! Tho the Climate by its Distance from the Sun, should be as warm as ours; yet for Reasons, which the Naturalists will easily give us, 'tis so cold and frosty, that it kills almost all sorts of Roots in the Ground which are sown there; and those Plantations, so often recommended by the Company, were chimerical and impracticable."

John Oldmixon

The relative peace that hitherto had accompanied the establishment of English settlements on Hudson Bay ended in 1686, at which time Anglo-French competition for control of the Bay broke into open warfare. In that year the English settlements of Moose Fort, Charles Fort and Albany fell to an

1. John Oldmixon, "The History of Hudson's Bay ... Being the last Chapter of Volume I of The British Empire in America... (London, 1708)," in J.B. Tyrrell (ed.), Documents Relating to the Early History of Hudson Bay, Toronto, 1931, p. 400.

overland expedition from Quebec. Only York Fort, or Port Nelson, as well as its outpost of Fort Churchill, founded on Severn River in 1685, remained in English hands. In 1688 the Company effected a settlement on the Churchill River. This post, however, accidentally burned shortly after its construction, while in 1690 the Company was forced to destroy its establishment on the Severn to prevent its capture by the French. The loss of these two posts, intended to strengthen the Company's position north of Cape Henrietta Maria, left only York occupied by the English.

In 1693 the English regained control of the Bottom of the Bay but occupied only the post at Albany which, together with York, comprised the only Company establishments on the Bay. York fell to the French in 1694, was re-taken by the English in 1696, and from 1697 until the Treaty of Utrecht was held by the French. Thus, with the exception of the single year of English tenure at York in 1696, Albany alone remained in English hands in the period 1694-1713.

A. CONFLICT AND THE ECONOMIC INCENTIVE FOR LOCAL FOOD PRODUCTION

Oddly enough, it was during this period that the Hudson's

Bay Company embarked upon its first serious campaign for local food production. This change in policy was initiated by various economic ills that beset the Company at this time. The war of 1689-97, which for the Hudson's Bay Company had begun as early as 1686, necessitated costly military expenditures for the Company. Moreover, prices of many of the manufactures upon which the Company's trade depended, as well as their costs of transport, rose considerably during the war years. The price of beaver, on the other hand, fell by more than half its prewar average.^{2.} More pertinent to the Company's agricultural policy, food prices, which in the 1670's and 1680's had been generally high, rose sharply in the 1690's.^{3.} In 1692 a series of bad crop years, known traditionally as the barren years, began in England and much of Europe, and persisted to the close of the century. Wheat, for instance, was dearer in 1692 than for the previous fifteen years, while the following year, it reached its second highest price of the century.^{4.}

2. K.G. Davies, in Introduction to E.E. Rich (ed.), Hudson's Bay Copy Booke of Letters Commissions Instructions Outward 1688-1696, London, 1957, p. xxxvi.

3. Ibid., p. xl.

4. Ibid., p. xlvii.

The increased expenditures occasioned during this period prompted economy measures in different areas of Company spending, including the costs of provisioning the settlements on the Bay. Attempts were also made to diversify the trade, largely because revenues were derived almost solely from the beaver. As other furs did not experience the same price decline as beaver,^{5.} diversification was chiefly in the area of small fur production. The Company, however, was willing to exploit any produce of Rupert's Land, including agricultural produce, that might find a market in England.

In 1693 the Hudson's Bay Company sent out detailed instructions of economy to its officers on the Bay. Among other measures, the Governor and Committee urged economy in the expenditure of provisions, taking pains to impress upon their Governors in Rupert's Land the increased cost of food in Europe. Governor Knight at Albany was apprised of the news that "all manner of provisions" had doubled in price within the year, and that "if the unseasonable wether ... should long continue there would hardly any Somer Corne be sowed wch. God forbid for a dearth in Europe would certainly follow upon it."^{6.}

5. Ibid., p. xlvi.

6. "Governor and Committee to Governr. Knight & the Rest of Councell, London, the 17 June 1693," in E.E. Rich (ed.), Hudson's Bay Copy Booke of Letters Commissions Instructions Outward 1688-1696, London, 1957, p. 203.

More specifically, Governor Geyer at York was told that the price of beef and pork had risen fifty per cent, while that of grain had doubled.^{7.} These items, it should be noted, comprised the most expensive component of the European provisions consumed at the factories, and were therefore of significance to the costs of provisionment on the Bay.

Although the prices of some commodities, especially flour and malt, rose considerably at this time, many of the European foodstuffs required on the Bay experienced only short term price variations. Some, in fact, remained static, or nearly so. Beef, for example, remained steady at 25s., while pork rose only from 28s to 33s.^{8.} Yet the fears of the Committee, heightened by other wartime considerations, were sufficiently real at this time to impress upon their Governors, not only "the greatest frugality imaginable in all manner of provisions,"^{9.} but also the expediency of raising, besides garden produce, cereal grains and livestock at their establishments on the Bay.

7. "Governor and Committee to Capt. Geo. Geyer Governr. at Yorke Fort in Hudsons Bay, London, the 17 June 1693," in ibid., p. 186.

8. E.E. Rich, The History of the Hudson's Bay Company 1670-1870, Vol. 1: 1670-1763, London, 1958, p. 311.

9. "Governor and Committee to Capt. Geo. Geyer Governr. at Yorke Fort in Hudsons Bay, London, the 17 June 1693," in E.E. Rich (ed.), Hudson's Bay Copy Booke of Letters Commissions Instructions Outward 1688-1696, op. cit., p. 186.

The Committee wasted no time in launching its drive for local food production, which it began immediately in 1693 by sending out supplies of seeds and agricultural implements, as well as careful and detailed directives on their use. Attention was focussed upon Albany, because "provisions at Yorke forte as geese Partradges Deere &ca. are abundently more plentiful than at Albany River which the Indians bring in great plenty to them therefore we are forced to bring more provisions to you which causeth a greater Charge to us." ^{10.} Consequently, the bulk of the implements and seeds, ^{11.} as well as one Stephen Pitts, described as possessing "great knowledge in all manners of Tillage & agriculture," ^{12.} were sent to Albany at the Bottom of the Bay.

In part, the object of this scheme was to afford fresh provisions, and thereby avoid scurvy. A local food supply based on agriculture might also go some way to rendering the posts less dependent on native hunters and fishermen, who by

10. "Governor and Committee to Governr. Knight & the Rest of Councill, London, the 17 June 1693," in ibid., p. 206.

11. "Governor and Committee to Capt. Geo. Geyer Governr. at Yorke Fort in Hudsons Bay, London, the 17 June 1696," in ibid., p. 200.

12. "Governor and Committee to Mr. Sinclar, London, the 17 June 1693," in ibid., p. 210.

this time were supplying almost all the game consumed at the factories. But the main objective, which for the first time received substantial support from the Company, was to effect major reductions in the costs of European provisions by developing agriculture at the settlements on the Bay.

The seeds sent to Albany comprised "all sorts of Garden seeds," hemp, flax "and all sorts Graine with directions how to sow and Cultivate them in a printed Booke." ^{13.} Among the garden seeds were carrots, peas, onions, beans, turnips, lettuce, spinach, radish, mustard and cabbage, while the corn, ^{14.} or grain, included wheat, barley and oats. The general letter contained additional instructions on sowing and cultivating barley, oats, wheat, beans and peas, while Governor Knight was directed to experiment on different soils and to ^{15.} attempt both autumn and spring sowing of wheat. Although the Committee noted with satisfaction the success of, and the benefits derived from, the turnips previously planted at

13. "Governor and Committee to Governr. Knight & the Rest of Councill, London, the 17 June 1693," in ibid., p. 208.

14. E.E. Rich, The History of the Hudsons Bay Company, op. cit., Vol. 1, p. 312.

15. "Governor and Committee to Govenr. Knight & the Rest of Councill, London, the 17 June 1693," in E.E. Rich (ed.), Hudson's Bay Copy Booke of Letters Commissions Instructions Outward 1688-1696, op. cit., p. 208.

Albany, particular stress in the instructions was laid upon the cultivation of grain. Of the peas and beans, for example, Knight was informed: "you need not be soe Curious."^{16.}

Much the same array of seeds was sent to York, including flax and hemp and the cereals sent to Albany. The instructions for York were considerably more elaborate, perhaps because the Governor and Committee felt that climatic obstacles to cultivation were greater at York than Albany. The instructions refer frequently to climate, and to aspects of microclimate in particular. The colewort seeds, for example, were to be planted "on a bank side neare the South under a shelter,"^{17.} while around all the cultivated areas Governor Geyer was advised "to raise a heighth of Ground or Hedge of reeds or some Fenc to keep the Northwest wind from them".^{18.} The Committee also reminded Geyer that considerable benefit had previously been derived from cultivation at York, in reference, most probably, to turnips and perhaps a few other hardy vegetables.

16. Loc. cit.

17. "Governor and Committee to Capt. Geo. Geyer Governr. at Yorke Fort in Hudsons Bay, London, the 17 June 1693," in ibid., p. 199.

18. Ibid., p. 195.

Domestic animals were not sent out in 1693, but orders were despatched to both York and Albany to ensure that shelters for livestock, as well as hay, be prepared for animals to be shipped the following year. Governor Geyer at York was informed that if there were:

"Wolfes or ravenous Beasts that will Destroy Cattle about the Factory ... to destroy them totally, As alsoe to encorage the Indians to doe the like, for we are resolved by Gods help to send some Cows Goates and Swine the next yeare not Doubting that they may be maintained and fed there very well." ^{19.}

Scythes, forks and rakes were shipped for the haymaking, which the Committee felt could be readily accomplished, having previously been informed that there was sufficient hay "not farr from the Factory for one Hundread head of Cattell and more." ^{20.} Geyer, however, was instructed to procure a winter's supply of hay for only 16 to 18 cows. Although goats and swine were previously mentioned in the letter, the Committee appears to have been intent on sending only cows in the next outfit. This was further indicated in the comment that "if we keep great Cattell [i.e. cows] Swine and goats may easily be kept." ^{21.}

19. Ibid., p. 194.

20. Loc. cit.

21. Loc. cit.

Only if the Governor at York, after mature deliberation, was convinced that the climate was altogether prohibitive to livestock, would the Governor and Committee abandon their plans for a livestock industry at York. However, they informed Geyer that they were certain the project would succeed and laid stress upon the benefits that would accrue to the residents of the Factory. The cattle would serve not only as a source of fresh provisions, but could be used in emergencies such as the failure of the ships to reach the fort. ^{22.}

Similar instructions regarding the eradication of wild animals, the procurement of hay and construction of shelters were sent to Governor Knight at Albany. The Committee, however, appears to have been more poorly informed on conditions at Albany for livestock, and was less decisive in its intentions to send livestock there. This was probably because Albany, in contrast to York, had been in French hands for a number of years. Still, the Committee expressed the hope that Knight would provide them "Encoragment the next Expedition to send ... Cows Goats & swine." They added that "if the first may be kept there as we doubt not, wee know the rest will follow in Cource, Your next may informe us what Cattell [i.e. live-

22. Ibid., p. 195.

23.
stock] you desire."

B. ENVIRONMENTAL PERCEPTION AND THE
DRIVE FOR AGRICULTURAL PRODUCTION ON THE BAYSIDE

The London letters of 1693 provide the first substantial indication of the Company's comprehension of, and attitudes toward, the Bayside as an agricultural entity. The Committee, despite detailed plans for development, was apprehensive about the suitability of the Bayside for agriculture. This attitude is well documented in the instructions to both Governors. Governor Knight, for example, was informed: "lett the event be what it will let it be done. If all be lost and the loss is to us & nobody else but if it should take whatt comfort would it be to those that Inhabit there."^{24.}

This uncertainty, although no doubt tempered by the knowledge of previous failures, derived primarily from the Committee's ignorance of conditions on the Bay. The Committee, however, was not without hopes for the success of their venture. These hopes were based upon speculation about, rather than direct knowledge of, the nature of the physical environment. Moreover, they were founded upon a number of misconceptions,

23. "Governor and Committee to Governr. Knight & the Rest of Councell, London, the 17 June 1693," in ibid., p. 205.

24. Ibid., p. 208.

which led the Committee to an overly optimistic view of the agricultural resource.

It was erroneously thought by the Committee that the soils of the Bayside were admirably suited for agriculture. This view was arrived at independent of any Bayside experience and was based on the assumption of the fertility of virgin soils. Since, as the Committee believed, these soils had "layne fallow it may from the Creation," they could only conclude that "such rich mould ... cannot Chuse but bring forth strongly."²⁵ That this view was strongly held was well evidenced three years later when Governor Knight's failure to raise hemp successfully at Albany was attributed by²⁶ the Committee to the "richness of the Soyle."

The Committee's understanding of the climate, although considerably less naive than their comprehension of the soils, was also shaped by conjecture. For the most part, their impressions derived from a knowledge of latitudinally analogous

25. Ibid., p. 209.

26. "the General Lettr. to Govr. Knight & the Rest of his Councill at Albany Fort, Gravesend the 30th May 1696," in ibid., p. 272.

areas of Europe. In assuming that similar latitudes were characterized by similar climates, the Committee was able to conclude, in term of climate at least, that like latitudes would offer equivalent possibilities for agriculture.

York, by virtue of its more northerly situation, was thought less suited for agriculture than Albany. Mention has already been made of the more elaborate cultural practices recommended by the Committee for York, where a harsher climate was thought to prevail. The Committee, however, did not consider the climate there sufficiently severe to preclude agriculture, a view which rested almost entirely upon an appeal to conditions at similar latitudes in Europe. Since livestock and garden produce could be raised successfully in Scandinavia, it was felt that similar results could be achieved at York. The Committee reasoned that Finland and Lapland (situated between three and ten degrees of latitude poleward of York), "are as Cold and colder & more barren & unfrutfull & much Longer Nights then at Yorke fort and yett at those places Cattel [i.e. livestock] are mainetained." Consequently, they felt "moraly ashurd" that livestock would also succeed at York. 27.

27. "Governor and Committee to Capt. Geo. Geyer Governr. at Yorke Fort in Hudsons Bay, London, the 17 June 1693," in ibid., p. 194.

For similar reasons the gardens were expected to yield well. If proper precautions were taken, the Committee had "noe doubt of theire comming to pfection as well as in any point of Sweden & Norway,"^{28.} where not only hardy European vegetables, but also cereal grains were raised.

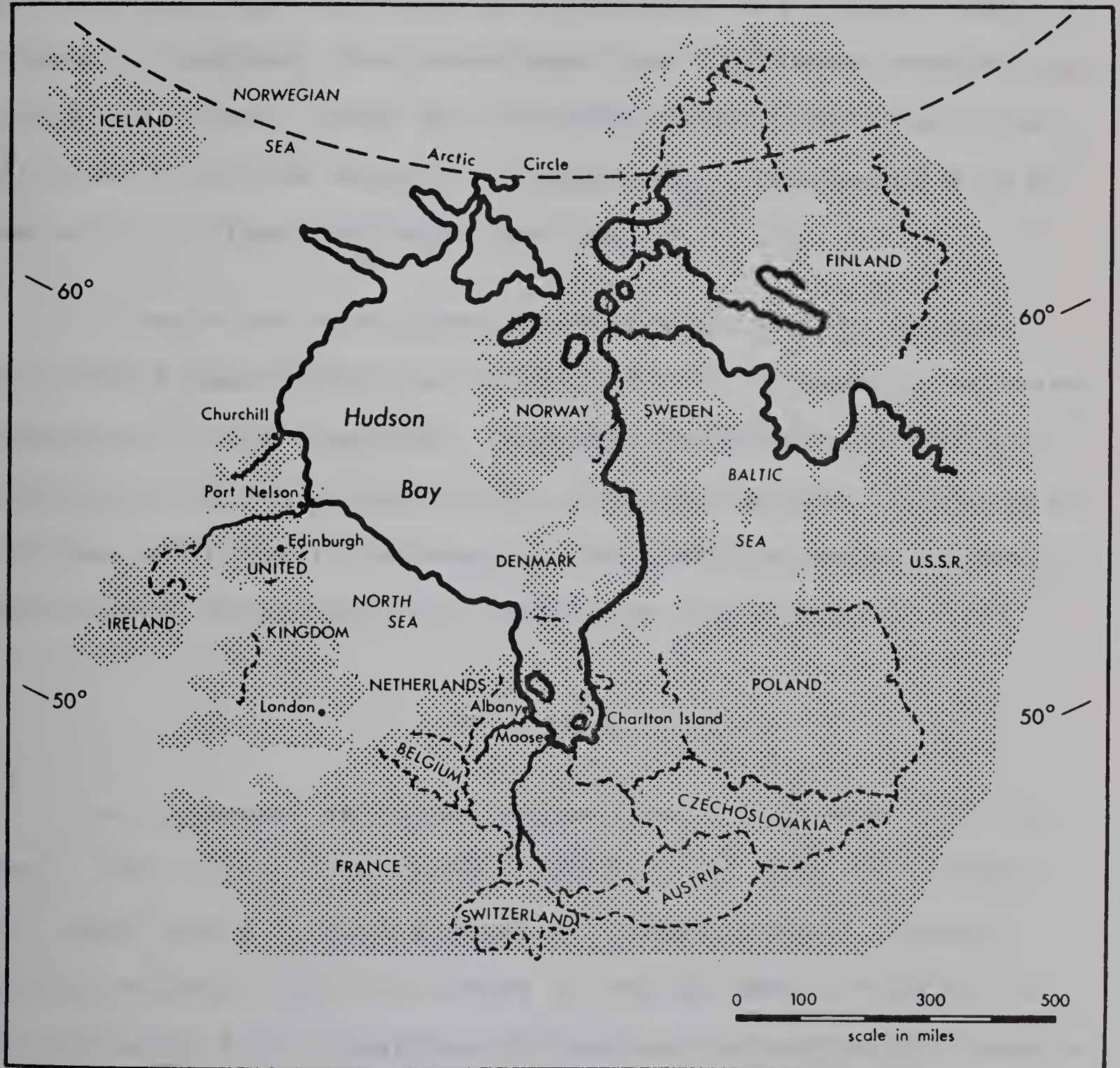
This a priori approach to the Bayside climate is further revealed in the instructions for wheat cultivation drafted by the Committee. Detailed instructions on the procedure of autumn sowing were sent to Albany and York. Governor Geyer, for instance, was informed: "You will se in Aprill whether it comes up or not if it doth come up and proves to ranck when you see it so you may mow the top of it of; if it be not rank^{29.} then lett it grow on in Gods name." The very notion that winter wheat might be cultivated by the Bay indicates that climatic conditions there were believed to correspond to some extent to those in Britain. This is further illustrated by the fact that it was expected to germinate in April, or at the same time as winter wheat in England. Speculation of this sort was in keeping with the assumed relationship between latitude and climate, the latitudes of Albany and York being roughly those

28. Ibid., p. 195.

29. Ibid., p. 196.

Figure 4

LATITUDINAL COMPARISON OF HUDSON BAY AND NORTHWEST EUROPE



of London and Edinburgh respectively. The Committee also displayed some awareness of climatic differences. They noted, for example, that snowfall on the Bayside was heavier than in England. However, they considered this difference advantageous for winter wheat, being of the opinion that "where such plenty of Snow is all the winter ... keeps every thing warme & is as we say in England the Poore mans Dung."^{30.}

Although the move toward agricultural self-sufficiency on the Bay came largely as a step into the unknown, it appeared warranted to the Committee. Economic conditions provided the incentive for the scheme, while apprehension about its viability was sufficiently coloured by optimistic speculation about the Bayside environment to justify its implementation.

C. AGRICULTURE TO 1696

The livestock intended for the Bay in 1694 were not sent out. York fell to the French, while it was held that cattle at Albany would be much exposed to French raids. Although Knight reported that the Bottom of the Bay was a "firtile & rich Country," the Committee decided not to send cattle because

30. Loc. cit.

of Knight's contention that there would be "great difficulty
& danger in Looking after them during the Warr."^{31.} The
Committee, however, kept alive its interest in raising cattle
at Albany, for in the general letter of 1696 the Governor was
informed that "We perceive your care in providing fodder for
Cattle ... but seeing the warr is as hot or hotter than ever,
we decline sending any for that reason & shall waite a fitter
opportunity."^{32.}

The war, although it postponed attempts to launch a
livestock industry, did not prevent the Company from implement-
ing its plans for cultivation. Stephen Pitts, for example, was
given a gratuity in autumn of 1694 for having been "Industrious
in Cultivateing the ground,"^{33.} and in 1696 Governor Knight
was praised for the success that had accompanied his farming
operations at Albany.^{34.} Both flax and barley had reportedly
done well at Albany and the Governor, in consequence of this
success, was directed to expand cultivation. The Committee,

31. "The Generall Letter to Govr. Knight & the Rest of his
Councell at Albany Fort, London 30th May 1694," in ibid., p. 230.

32. "the General Lettr. to Govr. Knight & the rest of his
Councell at Albany Fort, Gravesend the 30th May 1696," in ibid.,
p. 271.

33. E.E. Rich, in ibid., p. 212n.

34. "The General Lettr. to Govr. Knight & the rest of his
Councell at Albany Fort, Gravesend the 30th May 1696," in ibid.,
p. 271.

however, was of two minds as regarded flax cultivation. Although in an early paragraph of his instructions Knight was ordered to raise as much flax as possible for export,^{35.} this order, in the same set of instructions, was subsequently countermanded as follows:

"We send noe men to manage the flax because we find it requires such as are Intelligent in the dressin it there, therefore we desire none may be sowne untill further order, & for that reason doe revoke the 9th Paragraph." ^{36.}

The Committee, although interested in the possibility of developing a commercial flax culture at Albany, declined to attempt it, either because of the unavailability of skilled labour or, as was more likely, the capital investment involved. At this time the Company was in difficult financial straits and, in its endeavour to diversify and improve the trade, had instructed Knight to send samples of any product from the Bay that might command a good price in Europe. These included such products as feathers, quills, herbs, minerals, turpentine, drugs, dyes and castoreum. But for various reasons such as shortage of men, the climate, the quality of resource, the French, or

35. Ibid., p. 272.

36. Ibid., p. 274.

sheer apathy, none of these items was ever produced in any quantity.^{37.} The same financial motive attracted the Company to the possibilities of a commercial agriculture. Besides flax, the Company was also interested in the production of hemp, for which there was a good market in wartime England. Hemp, however, failed to succeed despite a number of trials at Albany.^{38.}

Although a commercial agriculture failed to develop at Albany, flax had been grown there and for a while, at least, considered commercially exploitable by the Committee. Barley alone of the cereal grains had reportedly been raised to maturity, while various greens and roots had been successful. Although no information is available on acreages or yields, the Committee appears to have been convinced of the utility of arable agriculture to its trading operation at the Bottom of the Bay. In a personal letter from the Committee, Governor Knight was highly commended for his "incomparable good managmt. of the affaires of the factory in yr. gardens and other improvements. in corne [i.e. grain] herbs rootes & plants

37. K.G. Davies in Introduction to ibid., p. xlvii.

38. "the General Lettr. to Govr. Knight & the rest of his Councill at Albany Fort, Gravesend the 30th May 1696," in ibid., p. 272.

whereby much of the expence of provisions from England are not only lesser, but the men thereby kept in bettr. health." ^{39.}

Thus, by 1696, there had developed at Albany an agriculture which, although no doubt limited and dependable only as far as a few garden vegetables were concerned, the Committee thought of as an asset to its business. The vegetables raised at Albany would undoubtedly have gone some way to improving the health of the men, but it is very unlikely that agriculture had the impact upon provisionment described by the Committee. Although good management may have effected some reduction in the volume of English provisions at Albany, to attribute this to agriculture could only have arisen, not from any economic calculation, but from wishfull thinking in London about the efficacy of their scheme for agriculture on the Bay. Knight had previously reported that the country at the Bottom of the Bay was rich and fertile, while his descriptions of the agricultural produce at Albany appear to have been overly sanguine if not grossly exaggerated. This information, together with the environmental theorizing in London, contributed to the Committee's impression of the success of their agricultural venture.

39. "Perticular Letter to Governr. Knight, Gravesend the 30th May 1696," in ibid., p. 276.

D. AGRICULTURE TO 1713

However successful Knight may have been with his agriculture, his successor, John Fullartine, could not report such encouraging results. In 1705 the Committee observed with dissatisfaction that the gardening at Albany was not as successful as formerly, and attributed this state of affairs to mismanagement on the part of the new Governor. Still entertaining the possibility of cereal production at the Bottom of the Bay, but apparently no longer convinced of the fertility of the soil, the Committee hoped to improve matters by introducing new cultural techniques.

1. Gardening

In 1705, the Committee recommended the implementation of a three-field crop rotation system to boost the seemingly languishing agriculture at Albany.

"we advise you to divide them [i.e. the gardens] in three parts and then to let one part lye fallow, Then dig it up Two or Three times in the former and dung and mix it with the mould, but before let your dung lye in a heape and be all rotted, you must also observe not to Sow Two years Together one Sort of grain and in one bed, but change them, and then noe question but yr. labours will be Answered and have now sent you the best garden seeds we could get." 40.

40. H.B.C., Letter from the Governor and Committee to Governor Fullartine & the Rest of our Councill at Albany Fort, London, 30th May, 1705, A6/3, fol. 71.

Although a second garden was dug at Albany in the spring of 1706^{41.} and land was cleared for a third in the autumn of the same year,^{42.} there is no evidence to suggest that the three-field system as recommended by the Committee was in fact implemented at Albany. Moreover, there is no indication in the record of any attempt to cultivate cereals at Albany at this time.

The seeds planted in the spring of 1706 were described in the Albany Post Journal only as turnip seed^{43.} and "several sorts of seeds,"^{44.} while the only mention of garden produce besides turnips, is of cabbages^{45.} and coleworts.^{46.} A fuller account of what was probably planted is available from the following list, which is a breakdown of the contents of the "box of garden seeds" consigned to Albany in 1705:

^{41.} Ibid., Albany Post Journal, B3/a/1, April 25, 1706. The post journal, which contains a daily log of activities and events at the fort, survives as a record from September, 1705.

^{42.} Ibid., B3/a/2, September 30, 1706.

^{43.} Ibid., B3/a/1, May 7 and May 9, 1706.

^{44.} Ibid., May 8, 1706.

^{45.} Ibid., June 21, 1706.

^{46.} Ibid., B3/a/3, October 25, 1706.

"one peck of Garden Beans, one Peck & half of Pease, Two pound of Turnip, Radish & Colwort seed each half a pound, cabage & Lettice each a quarter of a pound and halfe a pound Spinag, Charvill [chervil], Garden Cresses & Mary Golds each two ounces- & Sorrell one ounce & four Quarts of Mustard Seed." ^{47.}

The directive regarding a three-field system at Albany was the last communique from London to indicate any continuity of interest in the ambitious scheme for arable agriculture that the Committee had launched in 1693. Gardening was continued at Albany, but it reverted to a small scale kitchen gardening based upon a few garden greens and roots. Among them the turnip was the most important. The produce of the garden had little or no impact upon the provisions requirements of the post, but it must have contributed to the health of the men and afforded some relief from an otherwise monotonous diet. By 1708 the Committee appears to have reconciled itself to this kind of agricultural operation at Albany. Although agriculture failed to reduce the expenses of maintaining the establishment, it was still considered as an endeavour of import by the Committee, as is strongly evident in the instructions to Governor Fullartine of 1708.

"We doe order that you take care that the garden be fitted with all things that may be useful for the

^{47.} Ibid., Invoice Books of Shipments to Hudson Bay, A 24/2, fol. 7.

Factory, especially Turnips Carrotts Pease and Beanes, and that you order that the same be begun as soon as the Season will permit, and that this bee not omitted in any yeare on any pretence whatsoever." 48.

2. Animal Husbandry

The livestock intended for the Bay in 1694 were sent out following the treaty of Ryswick, which in 1696 brought a short-lived halt to the hostilities between French and English. In 1698 Governor Knight at Albany was provided with four sows, one boar, seven goats, ten sheep, three hogs and three and a half dozen fowls.^{49.} By the outbreak of the War of the Spanish Succession in 1701, Albany possessed a substantial herd of sheep and goats and the Committee was planning to send out bulls and cows. There was no room for the latter in the supply ship of 1701, but John Fullartine, who had replaced Knight as Governor of Albany by this time, was ordered to make preparations for a shipment the following year.^{50.} The ship of 1702 was delayed in leaving England and eventually sailed with an inadequate complement of men. Her captain, however, was ordered

48. Ibid., Instructions for Capt. John Fullartine new gowing Governor in the North West Parts of America in the Service of the Honble The Hudsons Bay Compa, London, 26 May, 1708, A6/e, fol. 91.

49. E.E. Rich, The History of the Hudson's Bay Company, op. cit., Vol. I, p. 312.

50. H.B.C., Generall Letter to Govenr. Fullertine and the rest of the Councill at Albany Fort, London, 28 May, 1701. A6/3, fol. 49.

to engage ten or twelve additional hands at the Orkneys and to procure a number of black cattle should he put in at any Scottish port.^{51.} Whether cattle were taken on as cargo is not known, but it is apparent that Captain Grimmington put in at Stromness in the Orkneys enroute.^{52.} There is, however, no evidence that Scottish cattle were shipped and, had there been, it is likely that they would have been mentioned in the Albany post journal.

In 1703 Governor Fullartine reported that the sheep and goats at Albany totalled 108 head.^{53.} The Governor and Committee looked favourably upon the large increase in livestock numbers. However, Fullartine, who had been so successful in

51. Ibid., Sailing Orders and Instructions to Capt. Michll. Grimmington, London, 30 June, 1702, A6/3, fol. 57.

52. J. Storer Clouston, "Orkney and the Hudson's Bay Company," The Beaver, March, 1937, p. 43.

53. "Letter from John Fullartine, Albany Fort 2 August 1703," in K.G. Davies (ed.), Letters from Hudson Bay 1703-40, London, 1965, p. 12. Fullartine's letter is significant in that it is the first surviving letter from Hudson Bay following Governor Nixon's report of 1682. At this juncture it should be pointed out that, in the "Introduction" to K.G. Davies (ed.), Letters from Hudson Bay 1703-40, Richard Glover writes of the "fine herd of cattle at Albany," which he describes as being of the "dwarf Orkney breed" and contributing little in the way of beef to the larder at Albany. (See "Introduction," p. xli). This description is misleading, as nowhere are cattle, as the term is understood today, referred to specifically in the letters from Albany at this time. Although Fullartine writes

cont'd

effecting this increase, was not of the same opinion. The labour required to procure hay, as well as the possibility of a French attack following the resumption of war, combined in Fullartine's view to render such large numbers of livestock a liability to the factory. The haying season, which began about the first of July and ended in mid-August, was coincident with the time when hostilities with the French were most expected. The haying required that half of the Company's servants (from twelve to fifteen men) absent themselves from the fort, thereby exposing both the haymakers and the factory to the enemy. The haymaking, moreover, coincided with the busiest trading period. And although a high proportion of the labour force was assigned to this task, it was only with the utmost difficulty that sufficient hay could be procured. In fact, Fullartine felt that with the increment to the livestock in 1703 it would be impossible for his men to lay by sufficient hay for the coming winter.

53. cont'd. of the "flock of cattle" at Albany, he mentions only sheep and goats in this connection. Glover has erroneously interpreted the term "cattle" in the modern sense, where it refers only to the bovine domesticates. In Fullartine's time, however, the term was employed as a loose synonym for livestock, and it was in this context that the term was used by Fullartine. Although sheep and goats were present at Albany at this time, not until 1747 were the first cattle sent to Albany. In the Albany Post Journal of 1754, mention is made of a fifteen year old cow, described as "... the first Cow brought to Albany which was in 1747." (See H.B.C. Albany Post Journal, B3/a/47, October 20, 1754).

In view of these difficulties Governor Fullartine proposed that the number of livestock be reduced, which he intended to accomplish by slaughtering most of the males. Significantly, he noted that the slaughtered livestock would contribute little to the provision requirements of the post. The animals, he wrote, "will go but a very little way to serve out amongst the men, for they are so produgously small." He remarked that the sheep "thrive indifferent well," while the goats were described as so small that some of the men at the factory were capable of eating one per day.^{54.} The goats at Albany contributed much less to the larder than did the sheep. In commenting upon the livestock slaughter in 1705, which was begun in autumn as soon as temperatures were low enough to preserve the meat,^{55.} Anthony Beale noted that "killed 10 Lambs of this years bread which was much larger and ways [i.e. weighs] considerable more than the goats, some of which did not exceed 8 lb if their Skin and Intrells where takeing from them".^{56.}

^{54.} Loc. cit.

^{55.} "killed 2 young Goats and 2 young Lambs of this years bread, and shall kill more dayly for I can keep them now with the frost and spend them when I have the most occation." H.B.C. Albany Post Journal, B3/a/1, October 13, 1705.

^{56.} Ibid., October 22, 1705.

No reason is given for the apparent dwarf size of the goats. Whether this related to the breed of animal or simply to the limited diet on the Bay is not known, although the former seems most likely. The sheep were of English origin,^{57.} and most probably the goats as well. Although no information is available on the characteristics of the English sheep which would permit further identification, it is significant to note that they represent the first breed of livestock introduced into Rupert's Land whose origin can be definitely established.

In the summer, the sheep and goats at Albany grazed untended in the adjacent forests and marshes. They were stabled after the first heavy snow in autumn and subsisted successfully on a diet of marsh hay throughout the long winter. On the whole, they appear to have survived conditions at Albany with few ill effects. The bulk of the young, although there is information only on those born in winter at the factory, survived without mishap, and only occasionally were animals lost to Indian dogs or other hazards when they foraged for themselves in summer. The greatest toll upon the livestock occurred in

57. Ibid., May 5, 1706.

spring, when the animals commenced to feed upon the fresh spring grasses, which apparently had a purgative and sometimes fatal effect following the steady diet of hay in winter.^{58.}

^{59.} Although the sheep were sheared in spring, the wool was of little economic consequence. The main function of the animals was to provide a fresh meat supply. Neither the goats nor the sheep had a draft function, and this absence of a draft capability at the post occasioned a further expenditure in maintaining the sheep and goats. Not only the hay making, but the transport of hay also involved considerable labour. As the Company's servants had not by this time employed the Indian dog as a draft animal, the hay was transported manually. Most of the carriage was conducted in winter, employing sleds hauled by the men. At times, when sledding was difficult, the hay was carried on the men's backs.

58. "One of my old Ewes that was brought from England and another which was bread here in the Countrey - Died to day which is usual when they come first to feed upon Grass after so long being kept upon Hay that the alteration of foode purges ... them to that degree that they become very Weake, we loose more or Less of them every Spring." Ibid., May 29, 1706.

59. Ibid., June 6, 1706.

In 1706 the livestock at Albany were reduced from 102 to 60. 40 head, and the years following 1706 saw the herd dwindle to a mere handful, most probably for the reasons of economy and security previously noted. The animals had proven unsuitable for the provision needs of the post, primarily because of the very low meat return for the labour expended, and the few that were retained served only to provide an occasional mess. What initially appeared to the Committee as a promising experiment in Bayside herding, much like the ambitious experiment in arable agriculture, passed into obscurity sometime after 1706.

60. "Governor Anthony Beale in his general letter from Albany Fort the 23 July 1706," in K.G. Davies, op. cit., p. 16.

CHAPTER IV

THE AGRICULTURAL POTENTIAL OF RUPERT'S LAND:

A PERIOD OF PUBLIC DEBATE

"As to the ... Objection of the climate, it is no more than a mere vulgar Error, derived from the ancient one of uninhabitable zones, it has long been proved that there is no climate under Heaven to which the human constitution cannot be reconciled by every little care, the necessity even of which care would cease with the first settlers themselves, as the Climate would be natural to their children born and bred to it."

1.

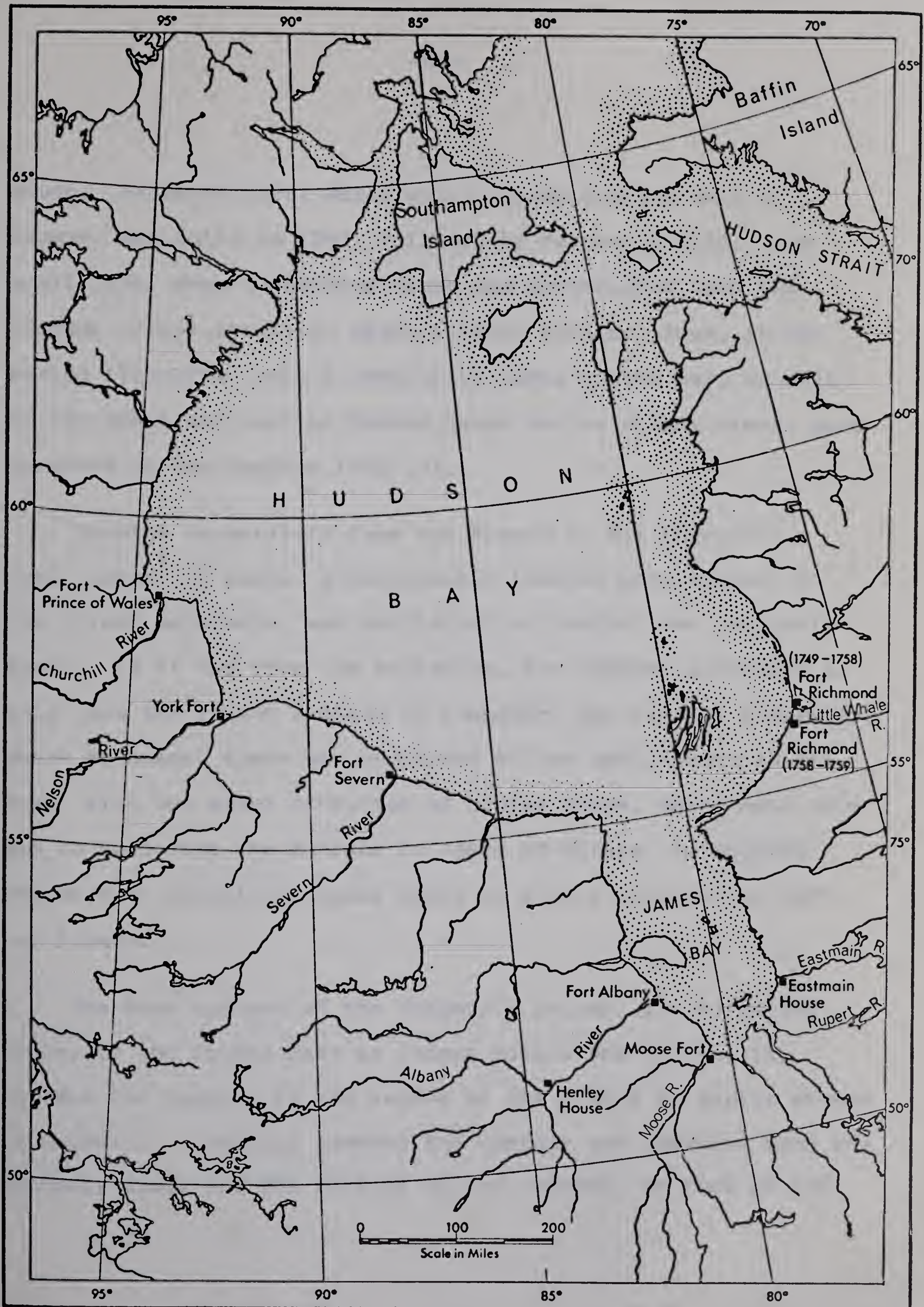
Alexander Cluny

The Treaty of Utrecht in 1713 brought to an end the long period of conflict between English and French on Hudson Bay. The Company, again the undisputed master of the Bay, re-occupied York Fort the following year, and in 1717 began construction at Churchill. Eastmain was established in 1723, Moose in 1730, while Henley House, an outpost of Albany, was constructed in 1743 on the Albany River some 150 miles from its

1. Alexander Cluny, The American Traveller: containing Observations on the Present State, Culture and Commerce of the British Colonies in America, and the further Improvements of which they are capable ..., London, 1770, reprinted by William Abbott, Tarrytown, N.Y., 1930 in The Magazine of History, Vol. 41, 1931, pp. 25-26.

Figure 5

HUDSON'S BAY COMPANY POSTS 1713 - 1774



mouth. Richmond Fort, which was in operation for only a decade, was built in 1749, followed by Severn in 1759. Not until 1774, when Cumberland House was established, did the Company effect its first major advance inland. Thus, in the period 1713-1774, only a handful of posts on the Bay, as well as the small out-post of Henley House on the Albany River, were operated by the Company (Fig. 5).

Despite competition from the French in the interior, a small number of posts, strategically located with respect to the inland waterways, was sufficient to conduct the Company's trade. As it had from the beginning, the Company continued to rely upon the inland Indians to transport the furs to tidewater, where an annual trade was conducted at the settlements on the Bay. With the minor exception of Henley House, whose main role was to encourage the Indians to trade at Albany, no attempt was made to establish inland posts in direct competition with the French.

The very success of the Company's policy, its so-called "Sleep by the Frozen Sea" as Joseph Robson was to call it, exposed the Company in the decade of the 1740's to public attack in Britain. Hostility towards the Company was focussed upon its monopoly trade and the failure of the Company, in view of its

sweeping privileges, to continue the search for the North West Passage or to colonize its lands. By this time there was an awareness in Britain of the Pacific explorations of the Russians and of the possibility of developing a trade with China. With the spectacular advance of the La Vérendryes into the interior plains region at the same time, moreover, it was feared that vast areas of Rupert's Land would be lost to British commerce, while the Company, in the face of this increased competition from the French, contented itself with the tidewater trade on the Bay. The assault on the Company was led by Arthur Dobbs, a persistent and apparently well meaning spokesman for the overseas expansion of British commerce. His support came mainly from powerful mercantile elements interested in freeing the trade to Hudson Bay. The result of the Dobbs controversy was a challenge to the Company's charter and a parliamentary enquiry into its affairs in 1749.

The report of the enquiry, together with several publications about this time, brought to light for the first time a great deal of information about the country in the vicinity of the Bay. For the first time as well, a considerable amount of material was assembled as to the nature of the country in the interior. Although no one had travelled any distance

south from the Bay since Kelsey's journey in 1690-92, a second-hand knowledge of the geography of the interior had for some time been accumulating at the Bayside from the accounts of the inland or Upland Indians. Knowledge of this sort, including much of what had been similarly gleaned by the French on the Bay, was incorporated into the writings of men like Arthur Dobbs, Henry Ellis, Theodorus Dradge and Joseph Robson. It was also prominent in the evidence that was heard at the parliamentary enquiry in 1749, and formed the basis of the various arguments developed to assail the Company on the grounds that it had failed to colonize its lands.

Long before the Company's advance inland it was commonly held that southward and inland of the Company's settlements conditions for agriculture became progressively better and, from the earliest days on the Bay, the accounts of the Upland Crees and Assiniboines had no doubt lent credence to this idea, at least as far as climate was concerned. Not until Arthur Dobbs began to pry into the Company's affairs, however, did this topic receive much attention in England. Nor, for that matter, had it been of much concern to the Company.

A. THE DOBBS AFFAIR

In his growing antipathy toward the Company, Dobbs not

only criticized the Company for its apparent insouciance in pursuing the search for the North West Passage, but energetically proposed that exploration be conducted along the northwest coast of Hudson Bay, where he felt certain a passage existed. His enthusiasm and connections were such that, in 1741, he succeeded in persuading the British Admiralty to send out an expedition for this purpose. The expedition, which was placed under the command of Captain Christopher Middleton, failed, and Middleton returned to England convinced that no such passage existed. The admiralty expedition, however, attracted a great deal of public attention and re-awakened British interest in a North West Passage to the Orient. A second expedition, again engineered in part by Dobbs and sponsored by commercial interests, failed in an attempt to find a passage in 1746-47. Not only was interest in the North West Passage re-kindled at this time, but for the first time the Hudson's Bay Company was put in the public eye.

The Company up to this time had successfully maintained a policy of forbidding publication of information on Hudson Bay and little, in consequence, was known about Rupert's Land or of the Company's activities there. In the 1741 edition of his The British Empire in America, John Oldmixon, for example, declared that he could write nothing of the Company's activities

since 1713, "Notwithstanding the pressing Instance I made to the concerned in the Hudson's-Bay Trade for Information to continue the Account of it down to this time."² Oldmixon, therefore, had to content himself "with adding only, that the Company's Factories and Fortifications, which the French had taken, were restored to them by the Peace of Utrecht."³

Secrecy was one of the few stratagems that the Company could employ to protect its monopoly trade in this little known and difficult region of North America. According to Williams, the Company's policy in this respect was characterized by:

"an obsessive guarding of the knowledge and expertise accumulated by its servants over the years of living, trading and navigating in the sub-Arctic conditions of the Bay region. Details of the timing and route of the dangerous voyage through Hudson Strait, the position of harbours in the Bay, methods of trade with the Indians, were carefully hidden from outsiders. Instructions from the London Committee to the Bay Factors laid down that 'none of our servants do send any intelligence to, or carry on any correspondence with any person whatsoever in London or elsewhere relating to the affairs of the Company.' Ships' captains were ordered to deliver

2. John Oldmixon, quoted by J.B. Tyrrell (ed.), Documents Relating to the Early History of Hudson Bay, Toronto, 1931, p. 409.

3. Loc. cit.

journals kept on board to the Company immediately on arrival, and to ensure that all letters brought home on the ships were sent to the Committee for scrutiny. Members of the Committee itself were warned not to let copies of the charter out of their possession. What little exploration was carried out by the Company servants rarely became public knowledge, and printed maps of the Bay remained as crudely inaccurate as they had been a century before." ⁴.

The resurgence of interest in the North West Passage, and the public attention that came to be focussed upon the Company and Rupert's Land at the same time, witnessed the first significant break in the wall of secrecy that the Company had erected to guard its trade. Shortly after the return of the admiralty expedition, a number of publications appeared that briefly described environmental conditions along the Bay. Middleton, for example, delivered a paper to the Royal Society on the effect of cold in Hudson Bay, which contained a reasonable description of the winter climate at Churchill. ⁵. About the same time, letters were published by a member of the

4. Glyndwr Williams, "The Hudson's Bay Company and its Critics in the Eighteenth Century," Transactions of the Royal Historical Society, 5th Series, Vol. 20, 1970, pp. 151-52.

5. Christopher Middleton, "The Effect of Cold; together with Observations of the Longitude, Latitude, and Declination of the Magnetic Needle, at Prince of Wales's Fort, upon Churchill-River in Hudson's Bay, North America; by Capt. Christopher Middleton, F.R.S. Commander of His Majesty's Ship Furnace, 1941-42," Royal Society of London, Philosophical Transactions, Vol. XXXIII, 1742, pp. 157-171.

expedition which briefly commented upon the country, as well as the Company's trade, in the vicinity of Churchill.^{6.} Dobbs, in the meanwhile, was engaged in a lengthy correspondence with Middleton wherein he discussed his plans to oppose the Company's charter. Because of Middleton's longstanding experience as a ship's captain in the Company's employ, Dobbs asked Middleton for information

"in relation to the Climate, Coasts, Rivers, and Trade in the Bay, that I might prepare matters to attack the Company's Charter and open the Trade, which I thought would be of great advantage to Britain, by making Settlements higher up the Rivers in better Climates, and by that Means securing the Country and Trade from the French." ^{7.}

Although he had previously afforded Dobbs a great deal of information on the Bayside, Middleton refused to co-operate further under these circumstances, which caused Dobbs to accuse him of having been bribed by the Company. In defense of his position, Middleton published A Vindication of the Conduct of Captain Christopher Middleton in 1743. This was followed by Dobbs' Remarks Upon Captain Middleton's Defence and Middleton's

6. See, for example, J.L. [John Lanrick], "From on Board his Majesty's Ship the Furnace in Churchill River, North America, June 21, 1742," The Gentleman's Magazine, Vol. XII, 1742, p. 56.

7. Arthur Dobbs, An Account of the Countries Adjoining to Hudson's Bay in the North-West Part of America, London, 1744, p. 105.

Reply to the Remarks of Arthur Dobbs. In this manner a spate of publications was launched, and the years leading up to the parliamentary enquiry, as well as those which immediately followed, saw a variety of books and pamphlets concerned with Hudson Bay. None of these publications, save for a single pamphlet by the Company's solicitor, was favourable to the Company, while threaded through most were partisan commentaries on the suitability of Rupert's Land for agricultural settlement. Thus, a concern in England for the North West Passage and for free trade led to a discussion of the nature of Rupert's Land for agricultural settlement and, ultimately, to a government enquiry which, among other things, scrutinized the agricultural resource of the Company's territories.

1. Opinions on Agriculture and Settlement Inland

In 1744 Arthur Dobbs published his major indictment against the Company. His book, entitled An Account of Hudson's Bay, was the first devoted to the Company and its territories, and comprised a powerful case for English colonization and commerce in the northern interior of the continent. Dobbs was also the first to print the Company's charter, which enabled him to effectively contrast the sweeping extent of the royal grant with

the Company's limited settlement and trade on the Bay. The full title of his book summarizes its contents, as well as its purpose, in the developing campaign against the Company.

An Account of the Countries Adjoining to Hudson's Bay in the North-West Part of America: Containing a Description of their Soil and their Methods of Commerce, &c. Shewing the Benefit to be made by settling Colonies, and opening a Trade in these parts; whereby the French will be deprived in great Measure of their Traffick in Furs, and the Communication between Canada and Mississippi be cut off. With an abstract of Captain Middleton's Journal upon his Behaviour during his Voyage, and since his Return. The whole intended to shew the great Possibility of a North-West Passage, so long desired; and which (if discovered) would be of highest Advantage to these Kingdoms.

Arthur Dobbs was a member of the Irish parliament and holder of a number of high offices, including that of Engineer-in-Chief and Surveyor-General of Ireland. He was also an economist and historian of repute and published occasionally on scientific matters.⁸ As early as 1730, Dobbs' concern for the protection and expansion of the colonial trade in North

⁸. In 1729-31, for example, Dobbs published a two volume Essay on Irish Trade, and "In his comments on trade and commerce generally, Dobbs was many years in advance of his time and antedated Adam Smith by more than forty years, a fact which in itself should place him high on the list of eighteenth-century economists." By 1730, Dobbs had also produced three papers on scientific subjects for the Royal Society. See Desmond Clarke, Arthur Dobbs Esquire, 1689-1765 Surveyor-General of Ireland Prospector and Governor of North Carolina, Chapel Hill, 1957, pp. 30, 31, 222.

America had led him to an interest in the Company's affairs, while it was from his studies of early voyages of discovery in Hudson Bay that he became convinced of the practical possibility of a marine passage to the Orient. By the time he commenced to write his book on the Company's territories, Dobbs was well versed in the material available at the time, including the French accounts of Nicholas Jérémie and La Potherie and the personal testimony of Joseph La France. More important, he also obtained information from ex-servants of the Company and, through his early connections with Middleton, gathered much in the way of documentary information from the Company, including a chart of the Bay by Middleton and extracts from one of the day journals kept at the Company's settlements. Although written around themes wherein the biases of the author's interests are apparent, the book was broadly based, not only upon the knowledge that was available for scholarly enquiry, but also upon much of what had been privy to the Company up until this time. Dobbs' account of the Bayside, in particular, contained a great deal of accurate and hitherto unpublished geographical information. His discussion of the interior, in contrast, contained many elements of the imaginative geography of the period. The latter comprised little more than "a congeries of various ill-defined spaces which bore

various names," and derived in large part from "theorizing about the possible character of the unknown lands."^{9.} In the hands of a skilled writer and ardent visionary like Dobbs, these vague ideas of terra incognita proved most malleable, and many of his descriptions of the interior, in consequence, closely suited his designs. Nevertheless, Dobbs also put together an impressive amount of sound information on the interior and, despite the grossly speculative nature of some of its content, the book must be considered the first publication in English to present a comprehensive and unified description of the northern interior of the continent.

Dobbs' book was dedicated to the King and contained two basic stratagems which he considered to be of great potential consequence to British imperial interests on the continent. On the one hand he proposed planting English settlers along a line of country between the Bottom of the Bay and Pennsylvania with the objective of cutting off the French from the West. And on the other, he stressed the importance of eventually achieving an overland passage to

9. Richard I. Ruggles, "The West of Canada in 1763: Imagination and Reality," The Canadian Geographer, Vol. XV, 1971, p. 235.

the Pacific. Both objectives, according to Dobbs, might profitably be achieved by colonization and the extension of trade into the interior. "What great Advantages might Britain by this time have receiv'd," he wrote, "had the Proprietors settled these Countries after the same manner our other Colonies are settled, at a trifling Quit-rent, with a Freedom of Trade to all British Subjects? We should, by this time, have had populous Settlements, and an extensive Trade in the Southern and Western Countries adjoining the Bay." 10.

In order to support his contentions about the viability of settlement and commerce in the interior, Dobbs dwelt at length upon environmental considerations. He depicted the physical basis for inland settlement in a most favourable light, and was especially sanguine about the conditions for settlement at no great distance from the Bottom of the Bay.

"If the Trade were opened, and these Rivers on the Bottom of the Bay were settled farther up in the Country, they would have a very temperate, fine Climate, with all the Necessaries for Life and even for Luxury. Here ... they may have all sorts of Fruit and Grain, tame Cattle and Fowl, and all kinds of Wild Beasts for Profit or Pleasure ... everything in gardens would grow with proper Culture. In the Country the Snow and Frost breaks up in March and does not begin again until about November." 11.

10. Arthur Dobbs, op.cit., p. 58.

11. Ibid., p. 43.

Dobbs' information on the country immediately inland from the Bottom of the Bay derived from the accounts of a Mr. Frost who, according to Dobbs, had resided at Churchill and Moose and claimed to have travelled some distance inland from both factories. He purportedly informed Dobbs that a "Kind of wild Oats or Rice" grew naturally up the Moose River and that "upon the Southern Branch all sorts of Grain thrives, as Barley, Beans and Pease do at the Factory, tho' exposed to all the chilling Winds which comes from the Bay." ^{12.} From statements of this nature, Dobbs could easily assert that upstream from the Bottom of the Bay one "may have everywhere within Land all Sorts of Fruit Trees as in the same Climates in Europe, for ^{13.} what Sorts they have tried thrive very well." Dobbs' discussion of the countries adjoining to the Bottom of the Bay also included an analysis from French sources of the settlement possibilities in the vicinity of the Great Lakes. The purpose of this elaboration was to demonstrate the feasibility of linking up future colonization from the Bottom of the Bay with that in Pennsylvania.

In addition to stressing the potential for agricultural

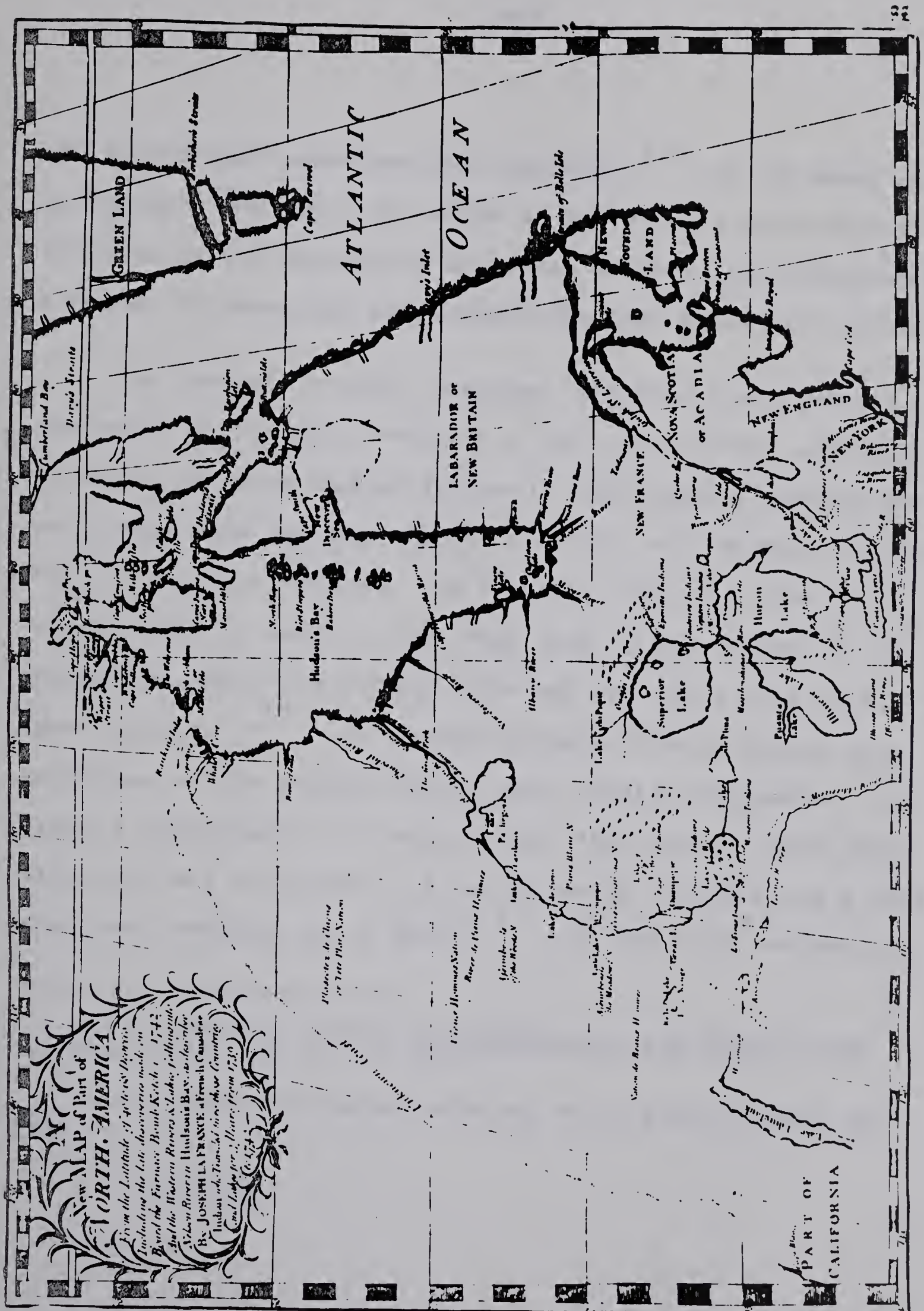
12. Ibid., pp. 46-47.

13. Ibid., p. 47.

settlement in this area, Dobbs devoted considerable attention to the country inland from York, and to that around Lake Winnipeg in particular. His focus upon this little known region related to his argument that the way to the Western Ocean lay via a river connection to the south of York and Churchill. To the extent that Dobbs' descriptions of this part of the interior derived from accounts other than those written from information communicated by Indians at the Bay, they were based primarily upon the narrative of Joseph La France. La France was a coureur de bois who in 1739-42 traversed the country between Sault Ste. Marie and York Factory via Lake Winnipeg and the Hayes River. He was interviewed by Dobbs in England, and the geographical information so acquired and incorporated into Dobbs' book, afforded the first published account of the Lake Winnipeg area based upon the observations^{14.} of a man of European origin. Of the La France narrative, Burpee has written "Considering that the narrative of La France's journey was communicated verbally to Arthur Dobbs, it furnishes a remarkably full and accurate account of the country between Lake Superior and Lake Winnipeg, as well as

14. John Warkentin, The Western Interior of Canada, A Record of Geographical Discovery 1612-1917, Toronto, 1964, p. 48.

Figure 6



Source: Richard I. Ruggles, The Historical Geography and Cartography of the Canadian West 1670-1795, Unpub. Ph.D. Thesis, The University of London, London, 1958, Vol. II, Fig. 72.

the tribes that inhabited that country."^{15.} As is shown on La France's map (Fig. 6), which is a literal interpretation by Dobbs of the narrative, La France or Dobbs also possessed a number of erroneous ideas about the Lake Winnipeg country.

La France's journey, however, afforded him a general awareness of the main features of this area which, according to Dobbs, he described as follows: "The Country West of the Ouinipique Lake has dry islands or Hills with marshy Bottoms, full of Wood and Meadows. On the East Side is a fine flat country full of Woods, until they come to the Bottom of the Mountains, which are betwixt this and the Upper Lake [i.e. Lake Superior]."^{16.} As regards climate, the La France descriptions of the inland country were wildly inaccurate. He greatly exaggerated in claiming that "the winter there [Lake Winnipeg] was not severe, it lasted about 3 Months and a Half,^{17.} the Frost breaking up in March." He was also overzealous

15. Lawrence Burpee, The Search for the Western Sea, Toronto, 1935, Vol. I, p. 226.

16. Joseph La France referred to in Arthur Dobbs, op. cit., p. 35.

17. Loc.cit.

in stating that sixty leagues up Hayes River "the Climate is good, and fit to produce Grain, Pulse &c. and very good Grass and Hay for Horses and Cattle."^{18.} Before he could testify before the Parliamentary Committee, La France died. However, his narrative, as transcribed by Dobbs, was laid before parliament when the enquiry convened in 1749. From the La France information, as well as from that assembled by Jérémie during his residence at Fort Bourbon (i.e. York Factory), Dobbs concluded that "The River Nelson, or Bourbon, opens a Navigation into a Country of surprizing Greatness, through many Lakes of great Extent, having many navigable Rivers running into them from Distant Countries in delightful Climates even to Lat. 46 and to Nations adjoining to the Western Ocean."^{19.} Moreover, just inland from the Bay in a southwesterly direction, the Climate became "as good as the Southern Part of Poland, and the North Part of Germany and Holland; nothing being wanted to make it so, but the building convenient Houses with stoves, such as are used in the same Climates in Europe."^{20.} Dobbs also produced some evidence of the existence of indian agriculture in the southwestern interior. This evidence

18. Ibid., p. 43.

19. Ibid., p. 59.

20. Ibid., p. 2.

derived from Indian information recorded by Jérémie at the Bay and related to some ill-defined nation living at a great distance from the Bay. These people were reputed to possess large amounts of silver and derived their subsistence from cultivating maize.^{21.}

Having described the countries to the south of the Bottom of the Bay and inland from the West Main, Dobbs completed his geography of the interior with a much more cursory consideration of the countries inland from the Eastmain and the North Main (the latter roughly corresponded to the coast of the Bay to the north of the Churchill River). Dobbs had little to say about the interior of the Eastmain, which he admitted was very little known. However, he did not hesitate to speculate about this area, opining that "if a Settlement was there in about Lat. 56 or 57 it would be in as good a Climate as at York Fort or New Severn, which is in a Climate equal to the Middle Part of Sweden or Livonia [i.e. present Latvia and Eastonia] being in the Latitude of Edinburgh."^{22.} The country inland from the North Main was, in Dobbs' estimation, poorly suited for settlement. He considered it to

21. Ibid., p. 21

22. Ibid., p. 50.

be "the most incapable of Improvement,"^{23.} and, from information afforded him by Mr. Frost, he wrote "that near the Rivers and Sea-coast, there was small shrubby Woods, but for many Miles, at least 60 farther into the Country, they had nothing but a barren white Moss upon which the Rain-Deer feed, ... and the Natives told him, further Westward beyond that barren Country,^{24.} there were large woods." Still, Dobbs commented upon the possibilities of trading, mining and of raising reindeer, and proposed that convict settlements equivalent to those in Siberia^{25.} might be established in this region.

The picture that clearly emerged from Dobbs' discussion of the agricultural potential of the interior was one of vast lands located to the south and southwest of the Bay where the agricultural characteristics of the land were akin to those of the countries of Europe in similar latitudes. These lands, moreover, commenced at no great distance from the Bay, beginning "some Miles higher up" or at a "Distance from the chilling^{26.} Winds in the Bay," where a "vastly better Climate" prevailed. All this Dobbs felt obliged to make public, and ideas to the contrary, he wrote, were "entirely owing to the Monopoly and

23. Ibid., p. 59.

24. Ibid., p. 47.

25. Ibid., p. 59.

26. Ibid., p. 51

Avarice of the Hudson's Bay Company, ... who, to deter others from trading there, or making Settlements, conceal all the Advantages to be made in that Country, and give out, that the Climate, and Country, and Passages thither, are much worse, and more dangerous, than they really are."^{27.}

These areas of potential colonization and agricultural settlement were depicted in the book as well wooded and fertile. Scattered throughout his descriptions of these lands, however, Dobbs made a number of references to natural meadows which, if taken together, convey an impression of a zone of woodland punctuated with areas of grassland that extended across the southwestern interior. From information acquired by La France in descending the Winnipeg River, for example, Dobbs wrote that this river ran "through a fine woody Country, having many Sorts of Timber Trees of Great Bulk. On the Southwest Side, at some Distance, is a flat Country, full of Meadows."^{28.} From the same informant he also took note of meadow land interspersed with woodland to the west of Lake Winnipeg and, in his account of the Indians to the west, made due mention

27. Ibid., p. 2.

28. Ibid., p. 20.

of the "Assinibouels of the Meadows." He further noted that "farther North a great Way, are the Assinibouels of the Woods."^{29.} Similar information is also contained in the account from Jérémie who related that the Assiniboines inhabited a country that was "full of fine Meadows, filled with wild oxen."^{30.} Dobbs, however, made no attempt to separate the meadow country as a regional entity distinct from the woodland. Nor did he speculate as to its extent. The several references to "fine" meadow land together with the mention of wild oxen, however, could only imply a landscape that was well suited for pastoral activities. Otherwise, he made no attempt to differentiate the physical characteristics of the meadow country for agriculture. The parkland vegetation region, in consequence, was not distinguished by Dobbs and remained simply an unqualified part of the vast interior zone which he portrayed as admirably suited for agriculture.

It should be observed that there is some possibility that Dobbs was in possession of the journals of Henry Kelsey when he was preparing his account of the interior. The first indisputable copies of the Kelsey papers were found among

29. Ibid., p. 16.

30. Ibid., p. 20.

Dobbs' papers in Ireland at the beginning of this century. Rich is of the opinion that Dobbs acquired the journals while Middleton was still in his confidence,^{31.} and has written "That Dobbs with a copy of Kelsey's Journal in his possession should have suppressed it ... is merely an instance of the rancour with which he challenged the Company's position."^{32.} More recently, Davies has maintained that there is no evidence^{33.} as to how and when the journals came into Dobbs' possession. Dobbs himself made no mention of Kelsey until following the parliamentary enquiry in 1749 and at no time indicated any knowledge of the journals. The fact remains that Dobbs did acquire the journals. If he possessed them while attacking the Company, this would say "little for his veracity and much for his unscrupulousness."^{34.} If Dobbs did in fact suppress all knowledge of Kelsey, it would have been greatly to his advantage to do so.

31. E.E. Rich, The Fur Trade and the Northwest to 1857, Toronto, 1967, p. 111.

32. Idem., The History of the Hudson's Bay Company, 1670-1870, Vol. I: 1670-1763, London, 1958, pp. 299-300.

33. K.G. Davies, "Henry Kelsey," in David M. Hayne (ed.), Dictionary of Canadian Biography, Vol. II: 1701-1740, Toronto, 1969, p. 314.

34. Glyndwr Williams, "Highlights of the First 200 Years of the Hudson's Bay Company," The Beaver, Outfit 301, Autumn, 1970, p. 22.

It was not in Dobbs' interest to emphasize the occurrence of grassland in the southwestern interior and therefore to accord recognition to Kelsey's journals, wherein large tracts of open grassland are described. In making a case for colonization in the interior, Dobbs would have been hard pressed to depict large treeless areas in the interior as well suited for English agricultural settlement. Such a country would have been seen by his English readers as an alien environment for agriculture which, even in terms of colonial experience, was foreign to the British at this time. Nor would it have been in his interest to call it "barren ground" as Kelsey had done,³⁵ since this term in the usage of the day would have called up an image of infertile, sterile or unproductive land.³⁶ Dobbs, as previously noted, employed the term meadow in his descriptions of these lands, which implied that the treeless areas were restricted in size and suitable for livestock. More important in this matter was the fact that Dobbs had been building his case against the Company upon its failure to engage in exploration. It would have therefore been greatly to his advantage to conceal

35. Henry Kelsey in A.G. Doughty and Chester Martin (eds.), The Kelsey Papers, Ottawa, 1929, p. 13

36. J.A.H. Murray (ed.), A New English Dictionary on Historical Principles, Oxford, 1888, Vol. 1, p. 681.

from the public this singular feat of exploration into the interior via the Nelson-Hayes system, or in the direction that Dobbs proposed would lead to an overland passage to the Pacific.

Dobbs' book was followed by others that offered opinion on the nature of the Company's inland territories. Although there was none to rival Dobbs in scope or documentation, all presented a distorted or overly optimistic picture of the agricultural resource. Prior to the parliamentary enquiry, the only notable publication in this respect was Henry Ellis' A Voyage to Hudson's-Bay published in 1748. Ellis had sailed with the 1746-47 expedition for discovering the North West Passage and was one of Dobbs' supporters. Like Dobbs, he was highly critical of the Company's failure to settle the country and exaggerated the environmental possibilities of doing so. In this connection, Ellis wrote primarily about the resource potential of the Bayside, which he magnified considerably, and from this concluded that "the Country is much more fruitful farther within Land."^{37.} He also stated that the climate only thirty leagues inland could "justly be stiled temperate."^{38.}

37. Henry Ellis, A Voyage to Hudson's Bay by the Dobbs Galley and California; in the Years 1746 and 1747, for Discovering a North West Passage, London, 1748, p. 170.

38. Ibid., p. 152.

Thus, on the eve of the parliamentary enquiry, there appeared in England for the first time published opinions on the nature of the Company's inland territories. Although they contained much in the way of speculative exaggeration, especially as regards the agricultural potential, at no time did the Company, or those who defended its policies, attempt to refute the idea that conditions for settlement, and especially climate, improved inland. In reply to Henry Ellis' comments on the climate inland, for example, James Isham, the Governor at York, simply informed the Governor and Committee that "I shall agree with the Author so far that the climate may be more temperate thirty leagues up."^{39.} Although there were men like Isham who were rankled by these publications, and who even saw fit to pen their opposition in lengthy letters to the Committee, the Company took no step to answer the publications of its critics.

2. Views on Bayside Agriculture

Just as hostility toward the Company prompted the publication of exaggerated descriptions of agricultural possibilities in the interior, so it sparked generous statements about the

39. James Isham in E.E. Rich (ed.), James Isham's Observations on Hudsons Bay, Toronto, 1949, p. 206.

agricultural characteristics of the Bayside itself. This is evident in the works of Ellis, Dradge and Dobbs. In contrast to Dobbs, both Ellis and Dradge were possessed of very limited, but first hand, experience on the Bay.

Dobbs, who was preoccupied with the possibilities of settlement in the interior, was not as sanguine in his descriptions of the Bayside. However, he astutely observed that the Company's factories were poorly sited for agriculture, "for the Company's chief Aim being Trade, they don't regard the Soil, Aspect or Situation, where they fix them, provided they are upon navigable Rivers where their ships can approach them, and where the Natives can come in their Canoes."^{40.}

Moose and Albany, according to Dobbs, were unhappily situated amid swamps where they were exposed to the winds from the Bay in summer and the inundations of their respective rivers in spring. The new settlement at Churchill was in an "elevated Situation upon a Rock, surrounded with Snow and Ice for eight Months in the Year, exposed to all the Winds and Storms that happen."^{41.} Despite these adverse site conditions, Dobbs

40. Arthur Dobbs, op.cit., p. 52.

41. Ibid., p. 47.

reported that cattle and horses were kept at Churchill and that very good coleworts, turnips, pease and beans were grown at the Bottom of the Bay.^{42.}

Although he quoted a Company servant to the effect that barley thrived at Moose, Dobbs on the whole was not excessive about the gardening possibilities along the coast. Not until the evidence was being heard at the parliamentary enquiry did he engage in gross statements about the agricultural character of the Bayside, at which time he circulated a pamphlet among members of parliament wherein he claimed that barley, oats and rye ripened at Moose and that wheat survived the winter there to germinate in spring.^{43.} In his book, however, he took pains to emphasize that the Company had settled only the littoral where, despite the latitudes of the different settlements, the climate was much more severe than in Europe. He attributed the anomalous conditions at the Company's settlements to the chilling effects of the Bay which, he maintained, were felt only in the immediate vicinity of the coast. Exploiting this assumption and employing observations from the Albany post journal to support his case, Dobbs could readily conclude that:

42. Ibid., pp. 47, 52.

43. A.S. Morton, A History of the Canadian West to 1870-71, Toronto, 1939, p. 224.

"If they had fixed them [i.e. the settlements] higher up in the Country, where the thaw begins much sooner than at the Bay, they would have had a happier Situation, and a quite different Climate and Soil. How can it be expected that any Thing can thrive in their Garden [i.e. at Albany], or be brought to Perfection? when the Floods in the latter end of April leave Flakes of Ice several Feet thick in their Gardens, which are not dissolved until the latter End of May; and yet after that Time, when they dig their Gardens, they have very good Coleworts and Turnips, green Pease and Beans, when if they had been situated higher up in the Country from the Bay, they might have had all Sorts of Fruit, Grain and Roots in Perfection, and tame Cattle and Fowl for their Use." 44.

By demonstrating that the Bayside was climatically exceptional, Dobbs was able to effectively support the liberal use of latitudinal analogues in his discussions of the climate of the interior, which permitted him to assert that the agricultural possibilities of the inland territories, in contrast to the coastlands of the Bay, were the same as those in Europe at similar latitudes. At the same time, he shrewdly maintained that climatic conditions at the Company's settlements were more severe than those generally along the coast. The exposed site of Churchill, he noted, caused it to be colder "than in proper Situations within the Polar Circle." 45. The poorly

44. Arthur Dobbs, op.cit., p. 59.

45. Ibid., p. 55.

chosen sites, together with Company policies that did not encourage agriculture, ensured that the Company's servants were unable to "make any Improvements without their Factories, unless it be a Turnip Garden; confining them all the summer season, during the time of the Indian trade, within their Factories, lest they should trade by Stealth with the Natives." ^{46.} Thus, Dobbs did not portray the agricultural potential of the Bayside in a decidedly exaggerated manner. At the same time, however, he was highly critical of the Company's agricultural accomplishments and accused them of not having developed the full potential of the coastlands. In so doing, he did not close the door to others who might consider the Bayside to be capable of much more in the way of agricultural production than raising turnips.

In contrast to Dobbs, Ellis and Dradge made little mention of the agricultural characteristics of the Bayside. The few comments they did make, however, in no way detracted from the view that the Company's lands were suitable for agricultural settlement. Ellis was overly generous when he wrote that the soil at York was "very fertile," and that "most kinds of English

46. Ibid., pp. 2-3.

Garden Stuff grow very well, such as Pease, Beans, Cabbage Turnips, and many kinds of Sallads."^{47.} He also noted that "By the Sides of Lakes and Rivers there is abundance of wild Rice, which, if cultivated, would make good Food."^{48.}

Theodorus Dradge was wide of the mark when he pointed out that the Bayside Indians "have no manner of Corn, Pulse, or Roots in use amongst them; probably because they live by the Chace, which causes a frequent Removal ... ; for it cannot be attributed to the Climate; wild Corn [i.e. wild rice] being found even so high to the Northward as Hays's Island, by York Fort."^{49.}

Although there were no publications prior to the parliamentary enquiry that defended the Company, Middleton had at least opined that the immediate environs of the Bay were too cold for normal settlement and colonization, and that navigation difficulties would hamper attempts to colonize the interior. He had also produced a well received study on the winter climate at Churchill. In a report submitted to the

47. Henry Ellis, op.cit., pp. 150, 170.

48. Ibid., p. 170.

49. Clerk of the California [Theodorus Dradge], An Account of a Voyage for the Discovery of the North-West Passage by Hudson's Streights to the Western and Southern Ocean of America, Performed in the Years 1746 and 1747, in the Ship California, Capt. Francis Smith Commander, London, 1748-49, Vol. 1, p. 42.

Admiralty, just as in his prize winning paper read to the Royal Society, Middleton remarked that "It is not a little surprizing to many that such extreme cold could be felt in these parts of America more than in the same latitude on the coast of Norway."⁵⁰ Middleton, who had wintered at both Churchill and Trondheim, correctly attributed the milder conditions in Norway to the prevailing winds from the Atlantic. The colder conditions at Churchill, on the other hand, were "occasioned by wind blowing constantly ... for seven months in the twelve, between the N.E. and N.W., and passing over a large tract of land and exceeding high mountains."⁵¹ He was not so correct, however, in claiming that "The northerly winds being so extreme cold is owing to the neighbourhood of high mountains, whose tops are perpetually covered with snow,⁵² which exceedingly chills the air passing over them."

By this time, at least one other author, John Oldmixon, had taken exception to the latitudinal analogue as a valid

50. Christopher Middleton, "The Effects of cold; together with observations on the longitude, latitude, refraction of the atmosphere, and declination of the magnetic needle, at Prince of Wales's Fort, Churchill, North America. By Christopher Middleton, commander of his majesty's ship 'Furnace', 1741-42," in John Banow (ed.), The Geography of Hudson's Bay: Being the Remarks of Captain W. Coats in many Voyages to that Locality between the Years 1727 and 1752, London, 1852, p. 135.

51. Loc.cit.

52. Ibid., p. 134.

indicator of the Bayside climate. Middleton, however, appears to have been the first to offer a convincing, if not entirely accurate, explanation for the apparent differences in winter between the Bayside and Europe. Dobbs' book, it should be noted, appeared two years after Middleton's paper was published. Rather than contradict Middleton, whose views cast serious doubts upon the validity of comparing the climatic characteristics of the Company's territories with those in Europe at similar latitudes, Dobbs elected to elaborate upon Middleton's thinking by maintaining that the temperature conditions on the Bayside were anomalous in summer as well. Just as Middleton had pointed to cold winds from the interior to explain the extreme winters, Dobbs looked to the chilling winds from the Bay to account for the relatively cold summers. He also maintained that this effect was limited to the immediate environs of the coast and supported his contention with a variety of first hand observations. Thus, his book contained the most up to date and comprehensive account of the climate of the Company's territories, and was based throughout upon the accepted thinking of the time.

There was one other published source at this time that had a potentially significant contribution to make to the discussion on the agricultural potential of the Company's lands. This was the chapter on the history of Hudson Bay in

John Oldmixon's The British Empire in America, published in 1708 and again in 1741. Oldmixon's account was based upon Company records^{53.} and, since it was little altered from the 1708 edition, offered essentially non-partisan views on the Bayside physical environment as well as its agricultural worth.

Oldmixon's book was in some respects similar to Dobbs', for it was written "to show the character and great natural resources of the American Colonies, and the advantage that they would be to England."^{54.} In this respect, he had nothing but ill to say of Rupert's land, remarking that he was loath to let his "History open with the Description of so miserable a Wilderness, and so wretched a Colony."^{55.} In his account of the Bayside, which begins with the earliest voyages into

53. "The History of Hudson's Bay may be depended upon; for the Author took it from original Papers, he having had in his Possession the Journal of a Secretary of the Factory [Gorst], the Commissions and Instructions of some of the Governors, and other Memoirs, out of all which he could gather no more, and does not believe, that even by the Company's Books much more is to be gathered." John Oldmixon in the preface to the second edition of The British Empire in America quoted by J.B. Tyrrell (ed.), Documents Relating to the Early History of Hudson Bay, op.cit., p. xi.

54. Ibid., p. xiv.

55. Ibid., p. 373.

the region and terminates in 1706, Oldmixon described the colony as possessed of a "barbarous climate."^{56.} He had learned of both the Company's plans to plant a Colony on Charlton Island and of subsequent attempts by the Committee to relieve provisions costs by raising food at the factories. However, he considered these endeavours to be "chimerical and impracticable." Although he offered no reasons, Oldmixon pointed out that, despite the latitudes of the settlements, "'tis so cold and frosty that it kills almost all sorts of Roots in the Ground which are sown there."^{57.} In taking exception to the assumed relationship between latitude and climate, he further noted that "The Air even at the Bottom of the Bay, tho' by the Latitude 'tis nearer the Sun than London, being but in 51 Degrees, is excessive cold for 9 months, the other Months very hot but on a North-West Wind."^{58.}

Oldmixon also commented that "The Soil on the East Main, as well as the West, bears no manner of Grain."^{59.} Although he remarked that "Some Fruits, Gooseberries, Strawberries, and Dew Otter-berries [dewberries] grow about Prince Rupert's River,"^{60.} he depicted the environment as so

56. Ibid., p. 381.

57. Ibid., p. 400.

58. Ibid., p. 380.

59. Loc.cit.

60. Loc.cit.

cold and inimical to settlement that it allowed even the Bay-side natives only a hazardous subsistence. In no sense did he portray the Indian in the popular image of the noble savage living at one with nature: "this country being such a miserable Wilderness, that it affords not sufficient Sustenance^{61.} for the wretched Inhabitants." Of the English, Oldmixon maintained that they too would live in a miserable condition^{62.} were they not regularly supplied from England. The Company's profits, moreover, had been reduced, their returns were small^{63.} and their charges great, while "the Ice renders it so dangerous, that the Commerce seems not to be worth the Risk^{64.} that is run for it."

Although the 1741 edition of The British Empire in America was timely in terms of the growing controversy about the Company's lands, Oldmixon's views on this subject were not incorporated into the public debate. Possibly this was because his work remained obscure vis-à-vis the other publications, which were associated directly with the popular free trade movement and public interest in a North West Passage. It is

61. Ibid., p. 392.

62. Ibid., p. 383.

63. Ibid., p. 381.

64. Ibid., p. 408.

more likely, however, that this was owing, on the one hand, to the Company's failure to defend itself publicly and, on the other, to the circumstance that many of Oldmixon's opinions were not in accord with those of the Company's critics.

The remaining body of geographical information available on Rupert's Land at this time was more than a century old, and concerned the reports of early mariners such as Button, Munck, Foxe and James. Although the marine environment of the Bay was generally depicted as cold and hostile, no clear-cut picture of the Bayside resource potential emerged from these accounts. Some of these men suffered horribly at the hands of the elements in the Bay region, but they did not always describe the coastlands in unfavourable terms. Of the partially barren coast to the north of Churchill, for example, Captain Luke Foxe wrote the following in the summer of 1631:

"August 6: This land bore from me to the S.E. by E., and was gentle descending down to the Seaside, the greenest & best like I have seen since I came out of the river of Thames, and as it were inclosed with thick rows of Trees betweene one meadowe and another, distinct as it were Barne Elmes, nere London, and at sight hereof I did think of them; and if there be any keeping of tame Deere or other beasts, or tillage, I should think it to be there." 65.

65. Captain Luke Foxe, quoted in John Warkentin, op. cit., p. 14.

With Oldmixon in large degree excepted, the books published on Hudson Bay prior to the parliamentary enquiry in 1749 conveyed a generally distorted picture of the agricultural characteristics of the Company's lands. As much of their information derived directly or indirectly from observations in Rupert's Land, they also contained much that was circumstantial and accurate. For this reason, the different publications and especially that by Dobbs, appeared more authoritative than they were in fact. Because of the Company's prohibition on publication, moreover, little was known about Hudson Bay save for what the Company's opponents had seen fit to publish, or what had been learned of the Company's entanglements in warfare and politics there. As a result, the blend of distortion and accurate reporting that characterized most of the published comment, and that on agriculture in particular, stood virtually unopposed in England on the eve of the parliamentary enquiry.

B. THE PARLIAMENTARY ENQUIRY OF 1749

The parliamentary investigation, which was initiated by petitioners seeking to free the trade to Hudson Bay, was conducted in the first stage by a committee of the House of Commons. The Committee was charged

"to enquire into the State and Conditions of the Countries adjoining to Hudson's Bay, and of the trade carried on there; and to consider how these countries may be settled and improved, and the Trade and Fisheries there extended and increased; and also to enquire into the Right the Company of Adventurers trading to Hudson's Bay pretend to have, by Charter, to the Property of Lands, and exclusive Trade of those countries." 66.

The unfavourable impression of the Company created by the publications of its opponents prior to the parliamentary enquiry was further heightened by the Company's failure to send witnesses before the investigating committee when it convened in 1749. Oddly enough, this was the Company's intent, for in this manner, the Company sought to avoid "any possible breach of commercial security by its own servants before inquisitive M.P.s." 67. Having been assured of the right to be heard before the House of Commons at a later time, the Company joined the issue at this stage by submitting to each M.P. a brief published statement. Prepared by the Company's solicitor and entitled The Case of the Hudson's-Bay Company, the pamphlet emphasized the Company's difficulties in prosecuting its overseas trade. It succinctly reviewed the record of

66. United Kingdom, Report from the Committee Appointed to Enquire into the State and Conditions of the Countries Adjoining to Hudson's Bay and of the Trade Carried on There, London, 1749, p. 215.

67. Glyndwr Williams, op.cit., pp. 160-61.

exploration and offered reasons for tidewater trading despite the French activity in the interior. It also contained a strong repudiation of the possibility of colonization in the Bayside environment, a matter on which the Company confined its comments to the bare essentials.

The official statement asserted that "To settle this Country [i.e. the Bayside] with Colonies from England, is conceived to be impracticable; nor does the Charter seem to have had that much in View."^{68.} At the Bayside, according to the Company, the soil was infertile, there was snow on the ground for "Three Parts of the Year," sharp frosts occurred frequently in the middle of summer, the natives did not till the land, grain could not be raised, and the Company was obliged to import the greater part of its provisions from England.^{69.} No mention was made in the pamphlet of environmental conditions in the interior. The few remarks directed to the Bayside, moreover, offered no hint of environmental differences from one part of the Bay to the next, while there was no indication of agriculture at any of the Company's settlements. Thus, in a blunt and not entirely accurate manner, the pamphlet depicted the Bayside environment as uniformly hostile to agriculture.

68. H.B.C., The Case of the Hudson's-Bay Company, London, 1749, p. 3.

69. Ibid. cit.

Although there was more truth in the Company's statements than not, it was an exaggeration to claim that snow cover on the Bayside persisted for three-quarters of the year. The median number of days of snow cover at Moose is in the order of 180 days and that at Churchill is 210 days (Appendix A, Fig. 23), which indicates from six to seven months of snow cover rather than nine. The statement that sharp frosts occurred frequently in mid-summer cannot be discussed scientifically because of its qualitative nature, but it does convey a picture that distorts average conditions on the Bayside. Frost can occur even at the Bottom of the Bay in July and August, but the mean annual frost free period where the Company was settled varies from 60 to 80 days (Appendix A, Fig. 24). Although English provisions were required in large quantities at the Bayside settlements, the bulk of the food was derived from the local faunal resource and not from England as the pamphlet stated. Whether these exaggerations were deliberate, or simply derived from faulty information in London, is not known. It is interesting to observe, however, that none of the Company's statements conflicted with the information published by Oldmixon and Middleton. Oldmixon, for example, wrote

that it was "excessive cold for 9 months" at the Bottom of the Bay,^{70.} while Middleton noted that Churchill had "constantly^{71.} every year nine months' frost and snow.

Whatever its effect upon the M.P.'s, the Company's pamphlet had no impact upon the testimony heard before the parliamentary committee. Of the twenty-two witnesses questioned, fifteen were ex-servants of the Company and largely hostile toward their former employer. Six were merchants, of whom five were involved in the free trade movement, and the remaining witness was Arthur Dobbs. Those who gave evidence, in consequence, were largely partisan and, because of the Company's image at the time, felt free to exaggerate. In an extreme case, one of the witnesses was committed to custody^{72.} for prevarication. As a result, bias and overstatement characterized much of the evidence on agriculture at the enquiry. The questions put to the witnesses by the M.P.'s dealt mainly with the resources of Rupert's Land, and especially its

70. John Oldmixon, op. cit., p. 380.

71. Christopher Middleton, op. cit., p. 135.

72. E.E. Rich, History of the Hudson's Bay Company, op.cit. Vol I, p. 583.

mineral and settlement potential. They concerned not only the Bayside but also opinion on the nature of the interior.

1. Testimonials on the Agricultural Potential of the Interior

Almost without exception, the ex-employees of the Company testified that there were large tracts of land suitable for grain cultivation in the interior. Some of these men, moreover, had travelled short distances inland. On the whole, their testimony was redundant and largely speculative in nature. John Hayter, for example, who had been at Henley House, stated "That he had seen large Tracts of Land, which in his Opinion would bear Corn, if cultivated, the climate being much warmer within Land."^{73.} He also noted that, although "the climate is much warmer at Henley House than at Albany^{74.} they broke no ground there." Richard White said "That he apprehends that the Countries adjoining to Hudson's Bay might be settled and improved; and that in the Southern Parts Oats,^{75.} Barley and Peas would grow." Enoch Alsop afforded the tantalizing information that although he had not seen Indian corn growing on the Bay, he "had seen Pidgeons killed with it

73. John Hayter in United Kingdom, op. cit., p. 222.

74. Loc. cit.

75. Richard White in ibid., p. 219.

in their Crops."^{76.}

2. Testimonials on Bayside Agriculture

By far the greater part of the testimony concerning agriculture on the Bay dealt with Moose and Albany. The bulk of it, moreover, was focussed on Moose, which was thought to offer the best possibilities for agriculture. This view of Moose probably derived as much from its southernmost location as from the appearance of its natural surroundings or, indeed, the record of cultivation there. In this connection it is relevant to note that Moose, which Captain Coats described as the "garden of Hudsons Bay,"^{77.} lay at approximately the same latitude as Henley House.

Most of the witnesses noted garden vegetables at Moose and Albany, including beans, peas, turnips, coleworts, lettuce, cabbages and carrots. At Albany, according to Richard White, "Peas, Beans, Turnips, and Sallad grew as good and plentiful as in England." He also noted that he had never seen seed raised at Albany sown again.^{78.} Robert Griffin commented that

76. Enoch Alsop in ibid., p. 224.

77. William Coats, in John Barrow (ed.), op. cit., p. 48.

78. Richard White, in United Kingdom, op. cit., p. 219.

"the Beans are generally blighted; but the Turnips, Peas, and Cabbage, are in great Plenty and Perfection."^{79.} Captain William Moore, who had been at Moose, remarked upon eating^{80.} peas, beans and turnips that had been produced there.

Most of the information on gardening at York and Churchill was supplied by Joseph Robson. Somewhat more cautiously than he was to write three years later, Robson observed that peas and beans grew at York, but he knew of no grain being tried there. The produce of the former, he added, was about as much as six or eight people could eat. The peas and beans "grew by common cultivation, without any Force, but the produce was not so large as in England."^{81.} At Churchill, according to Robson, "the Soil will bear Roots, such as Carrots, Radishes, and Turnips; it also produces Coleworts, all which Roots and Greens grow in as great Perfection as they do here [i.e. in England]."^{82.} Robson's descriptions of vegetable gardening on the Bay, like those of the majority of the witnesses, were overly generous.

79. Robert Griffin, in ibid., p. 226.

80. William Moore, in ibid., p. 229.

81. Joseph Robson, in ibid., p. 217.

82. Loc. cit.

Most of the witnesses who remarked on agriculture at Moose, and to a lesser extent, Albany, claimed to have either seen or heard of various grains growing at these establishments. Edward Thompson, for example, who served for three years as surgeon at Moose, testified that the soil and climate there were as suitable for peas, beans and barley as several parts of Yorkshire. He also mentioned having seen better barley and oats at Moose than in the Orkneys, and claimed to have planted "Half a Dozen Corns of Wheat" in October which came to perfection in August. Although there was plenty of land suitable for grain, according to Thompson, its cultivation had not been encouraged, "but quite the reverse, the Governor absolutely forbidding it for no other reason, as the witness apprehends, but that if Corn had been sown, a Colony would soon have been erected."^{83.} Similarly, Robert Griffin claimed^{84.} to have seen oats grow to maturity at Albany, while Matthew Serjeant held that grain could be raised to a point twenty miles north of Albany.^{85.} The latter also testified that it

^{83.} Edward Thompson, in ibid., p. 223.

^{84.} Robert Griffin, in ibid., p. 225.

^{85.} Matthew Serjeant, in ibid., p. 221.

was general opinion at York Fort that the soil was fit for wheat, barley, oats and rye, and that some of his messmates had sown grain which, though it had grown to a considerable height, had failed to fill.^{86.} Serjeant, however, was of the opinion that it would not be profitable for the Company to plant cereal crops at the Bottom of the Bay, although he felt that the climate would permit it.

"if the Company was to grow Corn, they apprehend the French would come and take it, as they did their Sheep in the last War; but they might protect their Corn from the Indians; but the Witness does not think it for the Benefit of the Company to grow Corn; because they must have a House at a Distance from the Factories, and Men to watch it, to prevent the Home Indians from stealing it; they must also have Men to cultivate it, which would be very expensive. The Witness cannot determine whether it would be more so than having their Corn from Europe; and he thinks the Company would sow it, if it was to their Advantage." ^{87.}

Not all of the witnesses to testify at the parliamentary enquiry shared the opinion that grain had been, or could be, raised successfully at the Bottom of the Bay. Captain Thomas Mitchell, who was familiar with both Moose and Albany, knew of only two instances when grain had been tried and in each instance had failed.^{88.} Significantly, most of the testimonials

86. Ibid., p. 220.

87. Ibid., p. 221.

88. Thomas Mitchell, in ibid., p. 228.

relating to successful grain culture in this area involved individuals who on their own initiative claimed to have planted a handful or two of wheat, oats or barley, or had heard of someone having done so. It is not unlikely that a small patch of oats or barley sown in a favourable location would grow to maturity at Moose or Albany in certain years. Neither of these, however, would have been a reliable crop at the Bottom of the Bay.

At least two witnesses claimed that the Governor at Moose had not allowed grain to be sown. If grain cultivation had in fact been prohibited by individuals, which is a possibility that cannot be entirely ruled out, the London Committee certainly had no part in it, for all through this period the Committee strove persistently to promote agriculture at all the posts. The charge that grain cultivation was prohibited to prevent a colony taking root at the Bottom of the Bay also had no foundation. Although there were men at the parliamentary enquiry who indicated a willingness to settle as colonists at the Bottom of the Bay, there is no evidence of Company servants proposing to retire in Rupert's Land, while the Company records provide no indication of any man living independent of the Company, or even attempting to

89. do so. To be sure, powerful groups in England were agitating at this time for the Company's lands to be laid open for settlement and trade. However, the Company's ex-servants, like the Committee were on the whole convinced that a normal colony was impossible on the shores of the Bay. Even Joseph Robson, who had stated that if the land at the Bottom of the Bay was properly cultivated "the Produce would support Numbers of People," testified that "Lands so far to the Northward" would not attract English settlers, even were the
90. Company to grant land to private persons.

The opinions of the witnesses heard before the Parliamentary Committee, much as those expressed in the publications that preceded it, were largely those of the Company's critics. Insofar as they dealt with agriculture, their testimonials about both the Bayside and the interior were largely designed to depreciate the environmental obstacles to agricultural settlement. Those that dealt with the coast were almost exclusively concerned with arable agriculture. Animal husbandry

89. E.E. Rich, The History of the Hudson's Bay Company, op. cit., Vol. I, p. 606.

90. Joseph Robson, in United Kingdom, op. cit., p. 217.

was noted only to the extent that livestock were referred to at Churchill and passing mention was made to hay making at the Bottom of the Bay. The testimony regarding vegetable culture at the Company's settlements was accurate insofar as the vegetables enumerated by the different witnesses were in fact planted. However, the witnesses generally neglected to notice that the Company's gardens not infrequently failed or, as was more often the case, that many of the vegetables, although still of use in the kitchens, failed to reach maturity.

The evidence relating to cereal cultivation, and especially that dealing with the potential at Moose and Albany, was grossly exaggerated. Not until the House of Commons resolved itself into a committee of the whole house and heard, in addition to the report of the Parliamentary Committee, new evidence for and against the Company, including further testimonials from witnesses, was this view of cereal cultivation opposed by witnesses of experience on the Bay.

James Isham, who had been recalled by the Company from the important post of Governor at York to testify before parliament, stated that "No corn will grow there - we have Sallad - Turnips &c. I've sown Barley and Oats, it came to ear but never ripened. Corn won't ripen near Churchill and York, I don't know whether it w'd grow in Albany

91. &c." John Jones, who had been in the Company's employ at York Factory for five years observed that there was "No Corn Sown in the Country but Pease which in particular places will come to perfection." He also added that he "knew nothing of Corn growing in Albany." 92. Thomas White, when questioned if hay had been made in the country, replied: "Yes, Horses have been kept at Churchill but not wholly by Food of [the] Country." 93. The remainder of his evidence, which concerned York, was recorded as follows:

"Climate cold - Ice - never out of the Ground Some Depth... I've known it June before seed could be put in the Ground - no Wheat Sown - nor do I think the soil proper - The Country Wooded with White pine 30 or 40 foot high - well enough for building. One good Tree amongst 2 or 300 Birch and Poplar besides - The whole a Barren Country." 94.

The only witness at this time to comment on the possibilities of grain cultivation at the Bottom of the Bay was Captain George Spurrell. At the time of the enquiry, Spurrell had been twenty-nine years in the Company's service

91. James Isham in H.B.C., Parliamentary Select Committee of Enquiry on State of Hudson Bay . . . Held in 1749 - Miscellaneous Papers 1733-1749, E 18/1, fols. 196-197.

92. John Jones in ibid., fol. 198.

93. Thomas White in ibid., fol. 193.

94. Ibid., fol. 192.

as a sailing captain and was familiar with all of the Company's settlements on the Bay. Spurrell noted that "We carry Beef, Pork, Peace Oatmeal &c [to] Moose Country the most Southern part, but I doubt if it would answer to Sow Corn there in capacity of a Farmer. The utmost they can do is sow Peace . . . Corn grows in Countries more Northwds than ours, but then the climate may be difft." ^{95.}

Although testimony of this sort served to temper somewhat the statements previously incorporated into the report of the parliamentary committee, it was uttered by men still loyal to the Company, and amounted to little more than a weak minority view. The Company's servants, moreover, refrained from commenting about the interior. For these reasons, as well as the fact that the testimony given before the House meeting as a whole was not printed in any form, the views on agriculture voiced by the Company's critics prevailed in the end.

The published testimony on agriculture produced by the parliamentary committee dealt mainly with speculation as to the nature of the interior. With the exception of the La France narrative and the extracts from one of Kelsey's

95. Captain George Spurrell in ibid., fols. 199, 201.

journals submitted by the Company, it was concerned with the Hudson Bay Lowlands. Some of the ex-servants of the Company who testified before the committee possessed first hand knowledge of the Albany valley as far inland as Henley House. Otherwise, only the Bayside fringes of the Hudson Bay Lowlands had been seen by any of the witnesses. The testimony regarding the agricultural potential of this region, therefore, was based upon very limited experience. Most of it was wide of the mark.

To the extent that the opinions of the witnesses did not derive from malice toward the Company, they rested upon misconceptions of the climate. Although perceptibly milder than the exposed strand of the Bay, even the most interior parts of the Hudson Bay Lowland are everywhere subarctic in character. The idea that the climate, as well as the soil, was well suited for cereal cultivation perhaps related to the noticeably better stands of timber along the well drained banks of the rivers, to which the movements of the Company's servants were in large degree confined. As a result, the low lying and ill-drained northern fringes of the boreal forest that bordered on the Bottom of the Bay, and the south coast lowland in particular, emerged from the enquiry as well suited for agricultural settlement and cereal cultivation. This view, although entrenched by parties hostile to the

Company, was not opposed by the Company, for it too was essentially ignorant of the country in question.

Contrary to the evidence of one of the witnesses, however, ground was cultivated at Henley House shortly after its construction in 1743. The only vegetables planted there prior to 1749 were "greens,"^{96.} turnips^{97.} and coleworts.^{98.} However in 1746 an attempt was made to raise "corn". Although the type of grain planted is not identified in the post journal or in the correspondence between Henley House and Albany, some of it apparently matured, but the yield was so very poor that no further experimentation with cereals was conducted at this time.^{99.} No evidence of this singular endeavour was incorporated into the Company's evidence at the enquiry. In fact with the exception of the few terse comments from its own servants before the House as a whole, the Company revealed nothing of the agricultural endeavours at its settlements.

96. H.B.C., Henley House Journal, B 86/a/5, October 28, 1747.

97. Ibid., B 86/a/4, October 13, 1746; B 86/a/6, October 14, 1748.

98. Ibid., B 86/a/2, June 1745; B 86/a/4, October 13, 1746.

99. Ibid., B 86/a/4, October 17, 1746.

The only information at the enquiry bearing upon the country inland from the Hudson Bay Lowlands was that submitted from Kelsey and La France. In the later stages of the parliamentary enquiry, suspicion was cast upon the La France narrative because of adverse testimony concerning, not only La France's character, but also the contents of his account. Captain Spurrell testified that he had conversed with La France in the course of his passage to England and described him as an ignorant man who, having murdered one of his companions, had been forced to flee the country. Spurrell, who had read the narrative transcribed by Dobbs, testified that the description was "contrary to all that I have heard him [i.e. La France] say on the subject." 100.

La France's statements regarding the nature of the country as far inland as Lake Winnipeg, in consequence, probably did not have the effect upon parliament that Dobbs intended.

The contents of Kelsey's journal, in contrast, did not enter into the discussions at the enquiry. The extracts concerned only the country inland from the Saskatchewan River, and contained none of the journal descriptions relating to the intervening areas of the Hudson Bay Lowlands and the

100. Captain George Spurrell in H.B.C., Parliamentary Select Committee of Enquiry on State of Hudson Bay . . . , op.cit., fols. 200-201.

Canadian Shield that Kelsey had traversed. From the material submitted, moreover, it would have been impossible to determine with any accuracy where Kelsey's travels had taken him. At best, it could be said that he had wandered for several months in the country of the Assiniboines. In so doing, Kelsey encountered large areas of grassland and, as the following extract indicates, he undoubtedly reached the southern margins of the parkland region: "Now we pitched into the barren Ground. It is very dry Ground, and no Water; 101. nor could not see the Woods on the other side."

It should be observed that Kelsey reported no evidence of agriculture in the interior, nor did he offer any opinion on the agricultural possibilities of the areas through which he passed. There was only one observation in the journal submitted to parliament that could have been taken as an indicator of the possibility of arable agriculture in the interior. While still in forest country somewhere near the lower Saskatchewan River, Kelsey took note of some tall grass growing in about two feet of water. This was wild rice, or wild oats (folle avoine) as it was known among the French

101. Henry Kelsey, "A Journal of a Voyage and Journey undertaken by Henry Kellsey, to discover, and endeavour to bring to a Commerce, the Naywatamee Poets, 1691," in United Kingdom, op.cit., p. 277.

traders, which Kelsey described as having an "Ear like our
English Oats."^{102.}

It is of significance to note that in the versions of Kelsey's second journal submitted to parliament, the Company deleted or was unaware of the only comment in the journals which might have been seized upon to argue the case for arable land in the forest interior. In no instance, however, was the term "barren ground" lacking in the published version.

The extracts from Kelsey's journal, together with related correspondence, were submitted by the Company as documentary evidence of inland exploration. They do not appear to have been connected with the discussion of the inland agricultural resource and, unlike the La France account, did not become part of the public debate on the Company's lands until following the parliamentary enquiry.

Despite the unopposed view in parliament that the countries inland from the Bay were suitable for agricultural settlement, the Company was vindicated by the British Government in its policy of sleeping by the Bay. The Government had no interest in establishing agricultural colonies in

102. Idem., "A Journal of a Voyage & Journey undertaken by henry Kelsey through Gods assistance to discover & bring to a Commerce the Naywatame poets in Anno 1691," in A. G. Doughty and Chester Martin (eds.), op.cit., p. 13.

areas that might involve them in conflict with the French. At this time, moreover, the population of England was only eight million,^{103.} and there was obviously no need to establish additional overseas settlements to alleviate population pressures. During this period, domestic agriculture was prospering, England was a net exporter of grain,^{104.} and even had the vast granary of the present Prairie Provinces been known, it would not have been of pressing interest to the Imperial Government at this time.

The possibility of expanding commerce, and especially of developing new markets for the products of British industry, was a matter of much greater interest to M.P.'s. On subjects of this nature, however, the Company submitted a variety of documents in its defence, and for the first time made public much authentic detail about its activities on the Bay. The documentary evidence, moreover, showed that the Company's commerce, and hence its value to merchants and manufacturers in England, was much larger than its opponents had claimed in their petitions. At the same time, the Company demonstrated that its profits were no where near the exaggerated sums

103. E. E. Rich, op.cit., Vol. I, p. 589.

104. Loc.cit.

that Dobbs and other critics had claimed. As for the possibilities of expanding the trade into the interior, this was repeatedly opposed by the Company's servants who maintained that costs and logistical problems, let alone probable military requirements, would preclude any large scale penetration of the interior. Finally, there was no guarantee that imperial interests would be better served by freeing the trade to the Bay. Although a motion was passed in the House to test the Company's charter in the courts, it was defeated by a sizeable majority and the Company's case was dropped. The views of most M.P.'s, in Williams' opinion, were probably most roundly put in a newspaper report which commented that "as it appeared to be impossible to preserve this trade without forts and settlements on the coast of Hudson's Bay, and as such forts and settlements must be supported either by exclusive companies, or at the publick expence, the affair was dropt."^{105.}

C. PUBLIC OPINION OF RUPERT'S LAND IN THE
AFTERMATH OF THE PARLIAMENTARY ENQUIRY

Despite the verdict of parliament, opposition to the

105. The London Magazine, Vol. XVII, 1749, p. 411, quoted by Glyndwr Williams, op.cit., p. 163.

Company did not die down in England immediately following the public enquiry. In 1752 a petition against the Company was launched by London merchants and hatters. Arthur Dobbs was again involved in this attack upon the Company, but the petition was rejected by the House of Commons. The year 1752 also saw the publication of Joseph Robson's Account of Six Years Residence in Hudson's-Bay. Robson's book was of great significance, for it comprised the first book on the Company's territories based upon lengthy personal experience in the Company's employ. It contained a great deal of new information on the Bayside, including survey charts of the lower Nelson, Hayes and Churchill Rivers and plans of York Fort and the new Fort Prince of Wales. A former surveyor and supervisor of buildings for the Company, Robson was highly critical of the Company on a number of matters, including the Company's trading practices and the cruel treatment of Company servants by their officers on the Bay. The main objective of the book, however, was to show "the absolute Necessity of Laying open the Trade" because of "The vast Importance of the Countries about Hudson's-Bay to Great-Britain, on account of the extensive Improvements that may be made there in many beneficial Articles of Commerce." 106.

106. Joseph Robson, An Account of Six Years Residence in Hudson's-Bay, From 1733 to 1736, and 1744 to 1747, London, 1752, title page.

To this end, the book was dedicated to the Lord Commissioner of Trade and Plantations, and the preface contained a resume of the economic advantages which, in Robson's view, Britain would derive from developing the trade of interior Rupert's Land.

Although as recent research by Williams has shown, the book was instigated, and largely written by, the indefatigable
107.
Arthur Dobbs, Robson's book was well received as such by his contemporaries. The Gentleman's Magazine, for example, recommended it to naturalists, whose curiosity would be "satisfied," and to politicians whose judgement would be
108.
"enlightened." About the same time, The Monthly Review concluded that Robson's account was "as honest and just as
109.
it appears to be."

In contrast to the book by Dobbs, the emphasis on agriculture in Robson's account was more clearly upon the Bayside and its more immediate environs. Although he assigned

107. Glyndwr Williams, "Arthur Dobbs and Joseph Robson: New Light on the Relationships between Two Early Critics of the Hudson's Bay Company," The Canadian Historical Review, Vol. XL, 1959, pp. 132-36.

108. The Gentleman's Magazine, Vol. XXII, 1752, p. 190.

109. The Monthly Review, Vol. VII, 1752, p. 76.

no geographical boundaries to his comments about the interior, Robson asserted that he had confirmed the following information during his residence on the Bay:

"That there are fine improveable lands up the rivers in the Bay; and no British settlements, or colonies, made or attempted there. That it is very practicable to navigate the rivers and lakes, and settle colonies upon them, which might be comfortably subsisted by tillage and pasturage, to the great improvement of the trade of the country, and the consumption of British manufactures." 110.

To establish that the climate of Rupert's Land was suitable for this kind of settlement, Robson resorted to a well drawn comparison between the Company's lands and those in Siberia. He prefaced his argument with the remark that the opinions of Rupert's Land that had been fostered by the Company were much similar to the views that had once been held regarding Siberia. However, he observed that Siberia now "begins to be better known than the most cultivated parts of Russia were a century ago," and "is found to be watered with large navigable rivers, to have spacious and fertile plains, and many rich mines." 111. Robson then

110. Joseph Robson, op.cit., p. 7.

111. Ibid., p. 5.

The first part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom. It is shown that the structure of the atom is determined by the laws of quantum mechanics, and that the laws of quantum mechanics are in agreement with the experimental facts.

The second part of the paper is devoted to a discussion of the application of the theory of the structure of the atom to the study of the properties of matter. It is shown that the theory of the structure of the atom can be used to explain the properties of matter, and that the properties of matter can be used to test the theory of the structure of the atom.

The third part of the paper is devoted to a discussion of the application of the theory of the structure of the atom to the study of the properties of matter. It is shown that the theory of the structure of the atom can be used to explain the properties of matter, and that the properties of matter can be used to test the theory of the structure of the atom.

proceeded to maintain in a fairly accurate manner that Siberia, whose treasures had greatly expanded the power of the Russian Empire, lay parallel in latitude to the more northerly parts of Hudson Bay. Implicit in this comment was the idea that the more southerly parts of the Company's lands were much better suited for settlement than Siberia. He further maintained that, by virtue of its situation, the climate was colder in Siberia than in the western regions of Rupert's Land. Siberia, he observed, was located in

"the center of a much larger continent, [and] is several degrees colder than the countries westward of the Bay; for the farther easterly all northern countries are, they are proportionably colder, from the prevailing westerly winds, in the higher latitudes, crossing over large tracts of land covered with snow, whilst the winds which come from the ocean and open sea, are milder and more temperate." 112.

This was sound climatological reasoning, and illustrates the ingenious manner in which Robson and Dobbs were capable of using Middleton's comments on the climatological effect of winds to elaborate their arguments for agricultural settlement in the interior. The ideas regarding the relative dimensions of the northern portions of the continents of Asia and North America, moreover, comprised reasonably

112. Loc.cit.

The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is well-posed and that the solution exists and is unique. The second part of the paper is devoted to the construction of the solution. It is shown that the solution can be constructed by the method of successive approximations. The third part of the paper is devoted to the numerical solution of the problem. It is shown that the numerical solution can be obtained by the method of finite differences.

The fourth part of the paper is devoted to the stability of the solution. It is shown that the solution is stable with respect to the initial data. The fifth part of the paper is devoted to the convergence of the solution. It is shown that the solution converges to the exact solution as the number of iterations increases.

The sixth part of the paper is devoted to the application of the solution. It is shown that the solution can be applied to the problem of the motion of a particle in a magnetic field. The seventh part of the paper is devoted to the conclusion. It is shown that the problem has been solved and that the solution is unique and stable.

accurate versions of what is obvious knowledge today. They were even closer in accord with the accepted opinion of the time. The imaginary geography of the period favoured a much narrower North American continent than was in fact the case, while a variety of illusive seas were postulated to exist at no great distance to the west of the known lands.^{113.} All of these ideas could only have enhanced, rather than detract from, Robson's version of the climate to the west of Hudson Bay. Robson thus exhorted the British Government to emulate the Russian experience: "let us make the same experiment with the countries about Hudson's-Bay; either assign them as a place of banishment for our convicts, or send thither properly furnished a number of men of capacity and resolution, or do both; and the same, or better, I am persuaded, will be the effects."^{114.}

These ideas, and especially those relating to the climate of the interior, were undoubtedly developed by Dobbs. As early as 1731 Dobbs had produced a manuscript which, in William's view, "remains one of the most coherent and

113. Richard Ruggles, op.cit., pp. 235-243.

114. Joseph Robson, op.cit., p. 5.

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persuasive statements of the case for a Northwest Passage."^{115.}
Dobbs' argument centered upon the possibility of a passage somewhere near Ne Ultra (Roe's Welcome Sound) and was based upon appeals to a wide array of evidence, all of which was intended to show the probability of a nearby Western Ocean that was accessible by an ice-free marine passage. Using evidence from Foxe and other mariners, Dobbs maintained that the relative absence of ice and snow that had been observed near Ne Ultra was owing to the moderating influence of a marine connection from the nearby ocean. Dobbs also asserted that the Pacific coast of North America trended in a northeasterly direction (Fig. 6) and in 1747 disputed Russian evidence to the contrary in a letter published by the Royal Society, and entitled "The Distances Between Asia^{116.} and America." These were the ideas that afforded the basis for the climatological theorizing on western Rupert's

115. Glyndwr Williams, The British Search for the Northwest Passage in the Eighteenth Century, London, 1962, p. 31.

116. Arthur Dobbs, "A Letter from Arthur Dobbs Esq; of Castle Dobbs in Ireland, to the Rev. Mr. Charles Westein, Chaplain and Secretary to His Royal Highness the Prince of Wales, concerning the Distances between Asia and America," Royal Society of London, Philosophical Transactions, Vol. 44, 1746-47, pp. 471-76.

Land in Robson's book. It might be noted that controversy over the Russian discoveries persisted until Cook's 1778 voyage along the northwest coast of North America.

Dobbs' depiction of the climate of western Rupert's Land was based upon a synthesis of climatic theories that appears to have been somewhat advanced for his time. Whether this was original with Dobbs is not known. However, the relationship between temperature and latitude, as modified by the distributions of continents, oceans and prevailing winds, apparently was not explored systematically until the early years of the next century. The first systematic clarification of these relationships has been attributed to Alexander von Humboldt who, in a paper of 1817, examined the relations between "isothermal parallels" and geographical latitude. Humboldt had been impressed with the distinctly milder climate in northern latitudes of the west coast of North America compared to the east, and produced a map illustrating this effect with the concavity and convexity of the isotherms corresponding to the east and west sides of continents in 117. the zone of prevailing westerlies.

117. A.H. Robinson and Helen M. Wallis, "Humboldt's Map of Isothermal Lines: A Milestone in Thematic Cartography," The Cartographic Journal, Vol. 4, 1967, pp. 119-20.

Dobbs, of course, had underestimated the western extent of North America and knew nothing of the Cordilleran barrier to westerly air movements. Still, his descriptions of the climate west and south of the Bay were deduced from valid climatological premises, which permitted Robson with some authority to summarize conditions in the interior as follows:

"that the lands southward and westward of the Bay, are in good climates, equal in their several latitudes to those in Asia and Europe, and that the climate improves farther within land, the spring being earlier and the winter shorter; that by Kelsey's journal produced by the Company, and by Joseph de la France's which they have not controverted, the country abounds with woods, champains, plains, ponds, rivers and lakes, several hundred leagues west from the Bay; that the land is covered with beaver, buffaloes, deer, martins and other valuable furs; and the rivers and lakes are full of sturgeon and other excellent fish." 118.

Both Dobbs and Robson wrote at some length on the faunal resource of the interior. Despite the available descriptions of large numbers of buffalo in the Interior Plains, the idea that the buffalo might become a virtual staff of life in supporting inland settlement was not seized upon at this time. Dobbs and Robson mentioned the buffalo but neither emphasized them in this context. Rather, their

118. Joseph Robson, op.cit., pp. 62-63.

focus was upon agriculture as a means of supporting inland settlement. Both, however, described the faunal resource of the Hudson Bay Lowlands and the Canadian Shield in exaggerated terms, which further enhanced the picture of a prolific land lying just beyond the Bay. It is interesting that Robson drew upon the extracts of Kelsey's journal to support some of his contentions about the interior, and that he used the word "champain" to describe the grasslands of the southern interior. The word champaign, like meadow, implies limited, field-like areas and carries no negative connotations concerning agriculture. It was used in only one instance in Kelsey's journals.

This singular reference to Kelsey in connection with the character of the interior is interesting, especially as Robson devoted an entire section of his book to discrediting the Company's role in Kelsey's explorations. The extracts of Kelsey's journal which the Company submitted to parliament were lodged with the investigating committee in duplicate. However, there were minor differences between the two copies. Robson seized upon these discrepancies to question the authenticity of the Company's submissions and, claiming evidence from oral traditions at York Factory, denied that Kelsey's journey had been authorized by the Company.

According to Robson, Kelsey had run away from mistreatment at York Factory and, while in the interior, communicated with Governor Geyer. It was at this point, in Robson's view, that Geyer asked Kelsey to contact the more distant nations and promised to allow Kelsey to return in good standing if he undertook the task. At no time, however, did Robson impugn Kelsey or cast doubt upon his inland travels. This interpretation enabled Dobbs to write anonymously in Robson's book "that if Kelsey had indeed kept full journals, then 'the Company have thought proper to suppress them, lest the making public such authentic testimonials of a temperate climate, fertile soil, and a trade capable of vast extension, should bring to severe a reprimand upon the present management.' " ^{119.}

In his account of the Bayside, Robson too was strict to observe that the climate was much better a short way inland. Although he had resided at only York and Churchill, he further mentioned that "It is not to be imagined, that the most northerly settlements in the Bay, should have as good a climate as the southerly settlements, there being so great a difference of latitude as from 59 deg. to 51 deg.

119. Arthur Dobbs quoted in Glyndwr Williams, "Highlights of the First 200 Years of the Hudson's Bay Company," op.cit., p. 22.

120.
30 min." In this manner, the previous account by Dobbs was refined somewhat, and Robson went on to depict the agricultural nature of the different sections of the coast in exaggerated terms. The overall impact of the parliamentary enquiry had been such that Robson, only three years later, could call into question much of the evidence produced by the Company at the enquiry, and with impunity write that "all sorts of garden stuff flourish at the factories, and where barley and oats have been sown, they come to
121.
perfection."

At Churchill, he remarked that various greens, radishes and small carrots were grown, and that conditions for gardening were much superior a short way up the Churchill
122.
River. At York, "Most kinds of garden-stuff grow here to perfection, particularly pease and beans. I... am of opinion that barley would flourish here, and consequently in much greater perfection at Moose and Albany-rivers,
123.
which are in 51 deg. 30 min. and 52 deg." In sheltered

120. Joseph Robson, op.cit., p. 42.

121. Ibid., p. 63.

122. Ibid., p. 42.

123. Ibid., p. 43.

ground only fifteen miles up the Hayes River, Robson felt that "whole families might procure a comfortable subsistence" and perhaps be able to grow grains other than barley. Robson wrote in some detail about frost at York and Churchill and concluded that problems with frozen ground could soon be overcome because "Cultivated land... thaws much sooner than barren."^{124.} This, together with the fact that "The natural produce of Hudson's-Bay grows very fast, and comes to perfection much sooner than that of England,"^{125.} imparted to the region the agricultural characteristics that Robson described. Conditions at the more southerly settlements at the Bottom of the Bay were, because of their latitude, construed as considerably better. In his description of Moose, for example, Robson wrote that "sown wheat has stood the winter frosts, and grown very well the summer following; tho' the cold and frost is greater, and continues longer here than within land: black-cherries also planted here have grown and borne fruit, as would other trees if propagated."^{126.}

124. Ibid., p. 45.

125. Loc.cit.

126. Ibid., p. 63.

Thus, the Robson book was an outgrowth and logical extension of that produced some eight years earlier by Arthur Dobbs. This, as well as the fact that the contents of the second in no way contradicted but built upon those of the first, can be attributed to Dobbs. Both books, moreover, were in accord with the basic geographical concepts of the time, while the Robson book carried with it the authority of the first account based upon sustained personal experience on the Bay.

Opposition and hostility toward the Company, as well as public interest in its affairs, declined following the publication of Robson's book in 1752. All attempts to break the Company's monopoly had failed and, with the departure of Arthur Dobbs to North Carolina in 1754, the opponents of the Company lost their main protagonist. From the time of Robson's book until 1774, however, the Dobbs-Robson version of the agricultural potential of Rupert's Land remained unchallenged and largely accepted in England. In the Universal Dictionary of Trade and Commerce published in England in 1751-54, and again in 1774, for example, the descriptions of the Company's territories were taken almost

127.
entirely from Dobbs and Robson. The author, Malachy Postlethwayt, took some of his information from Middleton and Oldmixon, but accepted the accounts of Dobbs and Robson as most reliable. He also published lengthy excerpts from Dobbs and Robson on the agricultural resource of Rupert's Land and, in this connection, wrote that:

"We may justly wonder, that we never had 'till lately any clear account of matters considering how long we have had factories in these parts; and that, on the contrary all the accounts, hitherto given, represent the coasts of Hudson's Bay, as the most forlorn part of the universe, hitherto discovered. But for this the same gentleman whom we quoted [Arthur Dobbs], has fully accounted." 128.

Until the end of this period nothing was published to disprove the Dobbs-Robson view of agriculture in the Company's lands. In 1769, however, a much less authoritative and considerably more prejudicial account of the climate and agricultural potential of the Bayside appeared in a book entitled The American Traveller. The author,

127. Malachy Postlethwayt, "Hudson's Streights and Bay," in The universal dictionary of trade and commerce Translated from the French of the celebrated Monsieur Savary---with large additions by Malachy Postlethwayt, London, 1751-55, Vol. 1, pp. 957-61.

128. Ibid., p. 960.

Alexander Cluny, was a London wharfinger and one time seaman in the Company's employ who had wintered at Churchill from September, 1744, until June, 1745. Like Oldmixon, Cluny wrote on the state of the British colonies in America and their commercial advantages to the mother country. In the section of his book devoted to Hudson Bay, Cluny was scathingly critical of the Company and its monopoly trade. The climate of Hudson Bay, according to Cluny, afforded no obstacle to planting English colonies, a desideratum which he depicted as potentially of much greater advantage to the Crown than the Company's monopoly trade in furs.

Cluny advocated the establishment of no less than twelve separate colonies on the shores of the Bay and presented a case for the development of a whale fishery that would employ hundreds of ships and thousands of men. His argument for a viable colonial agriculture on the Bay was a crudely analogical one in which he chose to dismiss all prior attempts by the Company to cultivate the land.

"Nor is there greater weight in the miscarriage of the poor attempts hitherto made to raise Corn and Vegetables for the support of these Colonies, in those parts of the country which lie near the company's Forts; such miscarriage being far from proving that better success might not attend more judicious attempts made in other parts, particularly on Mouse [i.e. Moose]

and Albany Rivers, which lie nearly in the same Latitude with London." 129.

It should be mentioned that one of the Company's overseas officers, Andrew Graham, voluntarily undertook to reply to Cluny's allegations. Among the various manuscripts that Graham submitted to the Committee, there was one in which Graham remarked that Cluny's proposed colonists would not be able to grow grain on any part of the coast of the Bay. He stressed that this included the south coast at Moose and Albany, where he remarked that the growing season was too short for wheat and barley to mature. There is evidence that the Committee considered publishing some of Graham's voluminous comments on Hudson Bay. However, the Graham material, like that previously submitted by

129. Alexander Cluny, The American Traveller: containing Observations on the Present State, Culture and Commerce of the British Colonies in America, and the further Improvements of which they are capable..., London, 1769, reprinted by William Abbot, Tarrytown, N.Y., 1930, in The Magazine of History, Vol. 41, 1931, p. 26.

130. Andrew Graham in Glyndwr Williams (ed.), Andrew Graham's Observations on Hudson's Bay 1767-91, London, 1969, p. 330.

131. Glyndwr Williams, "Andrew Graham: A Biographical Sketch," in Andrew Graham's Observations on Hudson's Bay 1767-91, supra, Appendix A, pp. 357-58.

Isham, was not sent to press. With the exception of the pamphlet, The Case of the Hudson's Bay Company, and the limited testimony and documents wrung from the Company in the course of the parliamentary enquiry, the Company chose not to defend its position by publicizing either the activities of its overseas servants or their impressions of Rupert's Land. Thus, in the face of a long line of uniformly hostile publications, secrecy as to the nature of its lands remained one of the Company's overriding considerations in managing its affairs.

There was one other publication toward the end of this period which, although not directly concerned with agriculture and settlement, contributed to the limited literature on the agricultural character of Rupert's Land. This was a paper delivered to the Royal Society by William Wales in 1769. Wales was an astronomer whom the Company, at the request of the Royal Society, permitted to observe the transit of the planet Venus from Churchill in 1768-69. In his paper, Wales included comments upon the soils and agriculture at Churchill. He was critical of the soils in the vicinity of the settlement, but, having seen oats in one of the Company's gardens, remarked that "with proper culture" oats could be raised at Churchill "to some tolerable

degree of perfection."^{132.} Thus, the observations on gardening at Churchill by a scientist and Fellow of the Royal Society attested to an agricultural potential on the Bayside that surpassed even the most sanguine statements on this subject by Joseph Robson and Arthur Dobbs!

It is relevant to observe that, just as the century long period of Bayside trading was drawing to a close, the Company took its first steps toward abandoning its policy of absolute secrecy. In addition to accommodating the Royal Society on matters of astronomy, the Company also responded to requests for zoological specimens from the Bayside and, in the 1770's, co-operated with the Royal Society^{133.} by affording meteorological data from some of its posts.

132. William Wales, "Journal of a Voyage made by order of the Royal Society," Royal Society of London Philosophical Transactions, Vol. LX, 1769, p. 129.

133. These are limited to one or two years of temperature records and written descriptions of weather events. The archives of the Royal Society also contains meteorological journals from scattered inland posts and it appears that, following the Royal Society's initial request for meteorological information, individual traders donated material of this sort to the Society at irregular intervals. This information was communicated to the author by Mr. B. Kaye, Dept. of Geography, University of Manitoba. Mr. Kaye examined the Society's collection of meteorological journals in autumn, 1969.

This change in policy, according to Williams, was owing to Samuel Wegg, who was elected to the Company's Committee in 1760 and subsequently served on the executive of the Royal Society. Wegg became Governor of the Company in 1780 and it was he, in William's view, who "helped the Company of his day distinguish between information which because of its commercial importance was properly confidential, and that which was not."¹³⁴ Subsequently, the Company improved its public image somewhat and took particular pains to publicize its accomplishments in exploration. These found their most useful expression in the maps drawn from Company information by Aaron Arrowsmith, the first of which was published in 1795. It is interesting to observe that, although Admiralty information as well as private information from persons such as Alexander Mackenzie was also incorporated into this map, it was entitled "A Map Exhibiting all the New Discoveries in the Interior Parts of North America Inscribed by Permission To the Honourable Governor and Company of Adventurers of England Trading Into Hudson's Bay In Testimony of their Liberal Communications To Their Obedient and very

134. Glyndwr Williams, "The Hudson's Bay Company and its Critics in the Eighteenth Century," op.cit., pp. 167-68.

135.
Humble Servant."

Otherwise, the Company remained almost as secretive and enigmatic as had been its tradition. It maintained its policy of circumspection on agriculture and related matters and, until near the turn of the century, the report of the parliamentary and the books by Dobbs and Robson afforded virtually all that was known on these subjects. Not until 1790, when Edward Umfreville published his The Present State of Hudson's Bay, was there a significant addition to this literature. Umfreville, who had lived on the Bayside and travelled widely in the interior, described the conditions for agriculture at the Bayside settlements and in the country in the vicinity of the Saskatchewan River.^{136.} He also launched a number of attacks upon the Company, including the charge that the Company was withholding information on the North West Passage. Umfreville's book was in many ways reminiscent of the beginning of the Dobbs' affair, and undoubtedly influenced the Company's decision to permit Hearne to publish an account of his

135. Coolie Verner, "The Arrowsmith Firm and the Cartography of Canada," The Canadian Cartographer, Vol. 8, 1971, p. 5.

136. Edward Umfreville in W.S. Wallace (ed.), The Present State of Hudson's Bay, Toronto, 1943, pp. 12-15.

journey to the Arctic Ocean, which appeared in 1795.

Although published to demonstrate the Company's effectiveness in exploration, Hearne's account was the first in favour of the Company to challenge previous publications on Rupert's Land, and those of Dobbs, Ellis, Dradge, Robson, Cluny and Umfreville in particular. In the tradition of the Company, however, Hearne refrained from discussing agricultural matters. He simply discredited the contents of the different books and accused their authors of advancing "such notorious absurdities, that none except those who are already prejudiced against the Company can give them credit."^{137.}

Of Robson's book, for example, he wrote the following:

"Robson, from his six year's residence in Hudson's Bay and in the Company's service, might naturally have been supposed to know something of the climate and soil immediately around the Factories at which he resided; but the whole of his book is evidently written with prejudice, and dictated by a spirit of revenge, because his romantic and inconsistent schemes were rejected by the Company. Besides, it is well known that Robson was no more than a tool in the hands of Mr. Dobbs." 138.

137. Samuel Hearne in Richard Glover (ed.), A Journey from Prince of Wales's Fort in Hudson's Bay to the Northern Ocean in the years 1769, 1770, 1771, 1772, Toronto, 1958, p. lviii.

138. Loc.cit.

For all their faults, the books thus summarily dismissed by Samuel Hearne contained most of what was known in England about the colony of Rupert's Land. Following a century of uninterrupted settlement and trade, they also offered almost all that could be learned of its potential for agriculture and colonization. Although the vastness of Rupert's Land was early appreciated, its characteristics and extent were for long imperfectly known. With the exception of the information gathered by the French in their drive from Lake Superior into the Western plains, the only other knowledge that had been acquired of the lands beyond the Bay was privy to the servants of the Company, or lay unheeded and inaccessible in its London offices on Fenchurch Street. What information the Company acquired of the resources of the interior, and those relating to agriculture in particular, was strongly conditioned during the first century of European settlement in Rupert's Land by the economic geography of the Company's trade and the attitudes of Company officials toward it.

CHAPTER V

COMPANY KNOWLEDGE AND PERCEPTION OF THE
AGRICULTURAL QUALITIES OF THE INTERIOR TO 1774

"Now Reader Read for I am well assur'd
'Thou dost not know the hardships I endur'd
In this same desert where Ever yt I have been
Nor wilt thou me believe without yt thou had seen"

1.

Henry Kelsey

From the time of the Treaty of Utrecht until the beginning of the Seven Year's War, the French fur trade from the St. Lawrence made increasing inroads into the English trade from Hudson Bay. Throughout this period of national and economic rivalry in Rupert's Land, the Hudson's Bay Company continued to prosecute its trade from its settlements on the Bay. While the French occupied the interior, the Company conducted a trade that paid out an unbroken string of dividends to its shareholders. Important to the Company's

1. Henry Kelsey, "Henry Kelsey his Book being ye Gift of James Hubbud in the year of our Lord 1693," in A.G. Doughty and Chester Martin (eds.), The Kelsey Papers, Ottawa, 1929, p. 1.

financial well-being at this time was the fact that its main posts on the west coast of Hudson Bay collected furs from a vast hinterland which, for much of this period, lay beyond the effective range of the French. These posts, York Factory and Churchill, commanded the Nelson-Hayes and Churchill waterways respectively, and tapped the rich fur country to the north and west of Lake Winnipeg. Following the Treaty of Utrecht, these two posts became the mainstays of the Company's trade, while the posts at the Bottom of the Bay, which drew upon the country to the north of Lake Superior, suffered increasingly the encroachments of the French.

By the middle of the eighteenth century, the French fur trade had thrust well into the heart of the continent. As they pushed beyond the drainage basin of the St. Lawrence, French traders and coureurs-de-bois occupied the main waterways leading to the Bay. With the construction in 1753 of Fort St. Louis on the Saskatchewan River, the French trade reached its western limit on the continent. By this time a cordon of French posts stretched in a broad arc from Lake Mistassini in the east almost to the forks of the Saskatchewan in the west. Strategically located along the rim of Hudson Bay drainage, they tapped the stream of furs that hitherto had flowed freely to the English on the Bay and, in so doing,

threatened every major trade route to the English settlements save that of the Churchill River.

At its maximum the French encirclement caused a reduction in the fur returns at the Bay. Even in the face of diminished returns, however, the Hudson's Bay Company refused to deviate from its long established practice of tidewater trading. In part this was owing to inertia at different levels in the Company's organization. It was also due to the fact that the chief advantage of the Company in its rivalry with the French lay in the economies of its seaside trading operation. Its posts on the Bay were much nearer the main fur producing areas to the north and west of Lake Superior than were Montreal and Quebec, which performed the same marine entrepot functions as did the Company's factories. More important was the fact that the economic burden of collecting the furs and of transporting them overland to tidewater, as well as that of distributing the trade goods among the tribesmen of the interior, fell, not upon the Company, but upon the Indian traders. As long as the latter continued to carry down the furs, the Company could reap to the full the advantages of its seaside situation.

The French, in the troubled years from 1686 to 1713, had

lost in their bid to dislodge the English by directly attacking their marine bases on Hudson Bay. Now they attempted to neutralize the geographical advantages of the coastal settlements by usurping the fur supplies of the interior. In so doing, however, they were forced to carry their wares overland to the Indians and, as the trade expanded, to transport their furs over increasingly longer distances. As the lines of communication lengthened, trade goods perforce were reduced in volume, weight and variety. At the same time, only the finest of furs, and particularly those of high value per unit weight, were able to withstand the increased costs of transport to the warehouses on the St. Lawrence. Thus, from their most advanced positions, the French were able to divert only a portion of the trade, for the coarser and heavier furs continued to find their way to the Bay.

The Hudson's Bay Company, in contrast, employed marine transport and could dispose of even the poorest quality furs at a profit in the London auctions. At the same time, trade goods were carried by the Company's sailing vessels directly to the Indians at the factories at much less cost than could be done by the French. The Company's wares were also more varied and many heavy or bulky goods were available at the Bay in volumes that the French could not afford. Thus, the

Company provided a greater array of goods at less cost and afforded better bargains to its native customers. When French trading pressures intensified in the hinterland of the Bay, the Company reacted in ways that preserved the inherent advantages of its geographical situation.

In the first instance, the number of coastal settlements was expanded. Of the new posts, the most successful was Churchill, which opened a trading hinterland second only to York's, and which was located well to the north of the French advance. Elsewhere, new posts were opened for the convenience of the Uplanders already enmeshed in the English trading system in an endeavour to offset the French in the zones of overlapping commerce. This was the case at Eastmain, Moose and Severn, where settlements were established in a manner that roughly paralleled the westward advance of the French. At the Bottom of the Bay, where the Company was most directly exposed to the French, lower prices were charged and a wider array of trade goods offered the Indians. This region also saw the establishment of Henley House which, although located some 140 miles inland, was founded to bolster the trade at Albany. Thus, rather than settle the interior where they might compete directly with the French, the Company elected to continue the tidewater trade with its attendant low overhead

costs, and relied upon cheaper and superior trading goods, as well as the loyalty of the Indian trading captains, to maintain its inland connections.

Although the French increasingly reduced the quality, if not the number, of furs traded by the Company, fur prices rose and the Company's earnings remained fairly steady. Thus, as far as the London directors were concerned, an active policy of inland settlement, or even exploration, was seen as neither urgent nor desirable throughout most of the period of French competition. When, about 1750, the fur returns, and especially those at York, were substantially reduced, the Company reacted by sending servants to winter with Indians. Their objective was to divert the Uplanders from the French posts in the interior. This, the first significant inland initiative on the part of the Company, was inaugurated in 1754, when Anthony Henday was sent on the historic journey that took him to the eastern margins of the Rocky Mountains. This new programme, to bolster the Bayside trade by sending wintering servants inland, persisted until after the Conquest. It required no alteration in the Company's trading pattern and, like the inland post of Henley House, represented a continuation of, rather than a departure from, the Company's "Sleep by the Frozen Sea." Not until there emerged in the

interior a new, much stronger, St. Lawrence-based trade was the Company compelled to build inland. And not until then could their servants acquire any significant knowledge of the lands beyond the Bay.

To the extent that the events of the Seven Year's War rid the Company of the French, the Company's century long policy of Bayside trading was vindicated. However, as A. S. Morton has pointed out:

"it did not really close the chapter for the French passed on the trade machine which they had created to the English colonists on the St. Lawrence. These found Frenchmen at their beck and call who knew the country back of the Company's factories and how to carry on a successful trade in these distant parts. After a short interval they made their way in canoes paddled by voyageurs and guided by Frenchmen into the forest belt and precipitated a competition far more damaging than that of the French; they brought long years of lean dividends, and even years of no dividend at all. Not less damaging from the point of view of the Company, was that in so doing they were rendering its Charter of no force and were negating its claim to the soil. This might well have been avoided by a sharp aggressive against the French at the very beginning. There are many signs that the Governor and Committee in London felt that something should be done. The factors appealed to the Committee to take steps to stay the encroachments of the French; the Committee urged the factors to safeguard the trade in every possible way, but neither in London nor in the factories was there any clear vision of what could be done. All were wedded to the old trade machine - the trading Indians bringing down the furs to the Bay." 2.

Glover has pointed to three factors that deterred the Company from settling the interior - canoes, men, and skills in inland navigation. The resources for canoe construction, and especially birchrind, were lacking at the Bayside. The Company also had difficulty in recruiting sufficient men to man its coastal settlements, while none of the Company's servants possessed the skills to navigate the inland water-

3. All of these obstacles undoubtedly afforded good arguments against inland settlement, although none was to prove the fearsome problem imagined by some of the factors on the Bay when the Company eventually moved inland. The reasons for the Company's failure to occupy the interior ran deeper than that. They were, as A.S. Morton has pointed out, rooted in almost a century of routine trading by the Bay and were manifest in myopic views of the trade at both levels in the Company's administration.

"The vision of the Committee was to a large extent limited to the London market. It was, however, aware that the encroachments of the French threatened the claim of Britain to Rupert's Land and their own monopoly. All the remedy that they could suggest was to have the British Government make good their claim by diplomatic action ... The vision of the factors was confined to the horizon of their forts. They did not know the interior

3. Richard Glover, "The Difficulties of the Hudson's Bay Company's Penetration of the West," The Canadian Historical Review, Vol. XXIX, 1948, pp. 240-41.

and clothed it with difficulties and even terrors ... What was wanted was an officer overseas identified with no one fort but watching the interests of the Company at large ... It is conceivable that he would have made a point of getting an adequate knowledge of the geography of the Company's territories ... that he would have built Henley House when the French first became a menace ... that he would have had enough servants trained in the art of river navigation to go deeper into the country ... When ... the great drive of La Vérendrye's came, he would have advanced into the valley of the River Winnipeg. Conscious now that the French were contesting the claim to Britain and the Company to the great fur forest, and with men experienced in the art of travelling into the interior, he would have pointed the way to stay the French advance by a screen of forts." 4.

It is against this background of myopia and inertia that the Company's knowledge and perception of the interior must be assessed. When the establishment of an inland settlement was finally approved by the Committee, this momentous decision was based upon the advises of its officers on the Bay. To the extent that the factor's knowledge of the interior was expanded prior to the founding of the first inland settlement on Cumberland Lake in 1774, it was in large measure broadened by Indian report and by the observations of the small numbers of servants sent inland to win the Indians to the Bay. This information, together with the experience gained at Henley House, afforded the Company its

4. A.S. Morton, op.cit., p. 242.

only prelude to the problems of developing an inland trade. It also afforded the limited knowledge and understanding of the natural resources of the interior that the Company acquired in the course of its century of tidewater trading. That the corpus of information on this subject was in most respects very limited was as much owing to the idées fixes regarding the trade as to the pattern of trading that developed. The nature of this knowledge, and that of the agricultural potential in particular, was also influenced by a number of other factors. As Allen has recently pointed out, "The accuracy of the images that any person or groups at any point in time has about the world or a distinct part of it depends on a wide range of subjective constituency that condition both the acquisition of knowledge and the transmittal of that knowledge to individuals or groups." Moreover, it "may be affected more by esthetic, emotional, economic, and environmental biases than by the actual quantity or quality of geographical information."⁵ In the following discussion, an attempt is made to reconstruct and explain the Company's image of the inland agricul-

5. John L. Allen, "An Analysis of the Exploratory Process, The Lewis and Clark Expedition of 1804-1806," The Geographical Review, Vol. 62, 1972, p. 14.

tural resource, as well as to elucidate the role it intended for agriculture at the new posts in the interior.

A. PRECURSORS TO THE INLAND WINTERERS

Anthony Henday was not the first Company servant to view the country beyond the Bay. Several others had travelled inland long before this time, and for very similar reasons. In the course of the early voyages to the Bay, both Radisson and Groseilliers had journeyed short distances up some of the rivers flowing into the Bay in order to establish trading contact with the Indians. In 1689, the younger Groseillier, Jean Baptiste Chouart, ascended the Nelson-Hayes system in the hope that "by his Endeavours great numbers of Indians will be brought downe to our Factories to trade at the proper seasons."^{6.} Five years later a similar inland expedition under Elie Grimard and the Younger Groseilliers left York and, in Kelsey's view, penetrated some two hundred miles inland.^{7.} However, none of

6. "[Governor and Committee to] Mr. Raddison. London 20 May 1686," in E.E. Rich (ed.) Copy-Book of Letters Outward &c, Begins 29th May, 1680 ends 5 July, 1687. Toronto, 1948, p. 198.

7. A.S. Morton, op. cit., p. 111.

these early expeditions by French Canadians in the Company's employ yielded records and they appear to have contributed little or nothing of a lasting nature to the Company's knowledge of its inland territories. With the exception of the move inland to Henley House, there were three other excursions into the interior prior to the inauguration of the inland wintering programme in 1754. These were the journeys by Henry Kelsey, William Stuart and Richard Norton.

Little has survived in the way of documentation to elucidate the achievements of Stuart and Norton, both of whom travelled extensively in the tundra and forest-tundra transition zones west of the Bay. In 1715 Stuart was sent inland to arrange a peace between the Crees and Chipewyans in an attempt to improve the trade at York. He was also instructed to look for furs and "above all" to "make a Strict Enquiry" about minerals.^{8.} In the course of a year's travelling, Stuart appears to have traversed the southern tundra and reached forest country in the vicinity of the Slave River.^{9.} Governor Knight at York recorded that Stuart

8. Glyndwr Williams, "William Stuart," in David M. Hayne (ed.), Dictionary of Canadian Biography, Vol. II: 1701-1740, Toronto, 1969, p. 615.

9. A.S. Morton, op. cit., p. 133.

had travelled "N Nwt about 400 miles, then went N Wt to Cross that Baren Desarts and when they had cross'd them, they went W N Wt and came with a very Plentiful Country for Beasts." ^{10.} Stuart appears to have distinguished between the faunal resource of the forest and the tundra, which he described as a barren desert. The details of Norton's journey, which took him to the north and west of the new post of Churchill, are obscure.

The precursor to both Stuart and Norton on the tundra, and to Anthony Henday on the prairie, was Henry Kelsey. The pioneer of Hudson's Bay Company inland exploration, Kelsey was in no sense trained to make scientific observations. However, he left journals of his travels to both regions which contain the first descriptions by a European of these two major vegetation zones. In 1689, Kelsey was sent with a building party to the Churchill River. Having previously displayed a predilection, as well as a capacity, for inland travel, Kelsey and an Indian companion were dropped off at the tundra margin, and trekked some two hundred miles in search of Indians to trade at the new post.

10. James Knight quoted in loc. cit.

In so doing Kelsey became the first whiteman to journey on the tundra, although from his account it is apparent that he travelled no great distance from the coast. His journal, however, contains a variety of descriptions of this region, of which the following might be considered the best examples:

- June 29, 1689: "This days Journey most part ponds & hills we being hear 8 Miles from ye Seaside... abundance of Musketers & at night could not gett wood Enough for to make a smoke to Clear ym ..."
- June 30, 1689: "to day we travelled all within Land it being all hills & more barren than before ye hills being all stones with a coat of moss over ym ..."
- July 2, 1689: "The same going as before at noon it Raind hard having no shelter but ye heavens for a Cannope nor wood to make a fire ..."
- July 3, 1689: "This day setting forward more hilly then before & more Rocky ..."
- July 9, 1689: "Setting forward good weather & going as it were on a Bowling green ..."
- July 20, 1689: "This day very bad going on great pibble stones with great ponds of water three or four Mile over ..."
- July 21, 1689: "This morning had very good going on hard mud with great stones ..." 11.

11. Henry Kelsey, "A journal of a voyage & Journey undertaken by Henry Kelsey to discover & Endeavour to bring to a Commerce ye nothern Indians Inhabiting to ye Northward of Churchill River & also ye dogside nation," in A.G. Doughty and Chester Martin (eds.), The Kelsey Papers, op. cit., pp. 26-29.

Kelsey was clearly struck by the virtual absence of tree growth on the tundra, and especially of wood of sufficient size for fire and shelter. In places he saw an herbaceous cover that appeared to him as a "Bowling green" Generally, however, he described the surface as rocky or poorly drained, and almost devoid of plant life. Some twenty-five years later, Stewart described the tundra as barren desert, presumably in reference to the paucity of game. Kelsey, however, definitely used the word barren to describe the limited vegetation of the region. From the journal context, Kelsey appears to have used this term to connote not just the absence of trees, but the paucity of vegetation generally.

The following year Governor Gower sent Kelsey on the inland journey that has become a saga in the annals of Western Canadian exploration. In company with Assiniboine Indians, he set out from York Fort in the summer of 1690. Travelling southwest from York, he reached the Saskatchewan River and, shortly thereafter, became the first European to view and record his impressions of the northern prairie-parkland. Just as he had been the first to describe the musk-oxen of the tundra the previous summer, he also became the first European to observe the vast herds of buffalo of

the Canadian prairies. Kelsey remained two years in the interior and returned to York with what Governor Geyer described as a "good Fleet of Indians."^{12.}

From the outset, it should be noted that Kelsey's record of this journey is entirely devoid of any direct statements about agriculture. He apparently neither saw nor heard of gardening among the inland Indians, nor does he mention animal husbandry in any form. Moreover, there is little in his journals that would have permitted his superiors to glean any definite impression of the agricultural possibilities of most of the country through which he wandered. It is fair to say, moreover, that information of this sort either in London or on the Bay, would have been of little interest at this time. Although the Committee was planning to establish agriculture at York about the same time, thoughts of inland settlement and agriculture could not have been further from their minds than at this moment. Rather, the Company was desperately trying to maintain a foothold on the Bay. With the French in control

^{12.} Governor George Geyer quoted in United Kingdom, Report from the Committee Appointed to enquire into the State and Conditions of the Countries adjoining to Hudson's Bay and of the Trade carried on there London, 1749, p. 275.

of the posts at the Bottom of the Bay, the Company feared a serious reduction in trade. Geyer, under pressure from the Committee, responded to this situation by arranging a journey inland to persuade the more distant Indians to trade at York.

The Indians Kelsey was sent to meet were neither Crees nor Assiniboines. They appear to have been their southwestern neighbours, the Gros Ventres, although of this it is impossible to be certain. Kelsey's notes on the country through which he passed were incidental to the purpose of his journey. Although distances were frequently recorded in one of his journals, directions are absent and it is impossible to determine with any precision where he went. However, Kelsey did provide the first comments by a European of the prairie-parkland region. Even if these served only to verify what had already been learned from Indians, they furnished the only first hand basis for the Company's image of the western interior until, a few years following the parliamentary enquiry, the French again forced upon the Company the necessity of expanding the trade from the interior.

The "journal" of Kelsey's first season inland appears to have been written in retrospect. It is a summary of his first season's activities and takes the form of three pages of rhyming couplets. There are few comments in the first journal which are not given in more detail in the day-to-day commentary of the second. The first journal, however, is important, in that it provides the most significant clues as to his whereabouts during his sojourn inland. In the most celebrated stanzas of his doggerel, Kelsey refers to a place called "Deerings Point" as follows:

"Distance from hence by Judgement at ye lest
From ye house six hundred miles southwest
Through Rivers wch run strong with falls
thirty three Carriages five lakes in all".^{13.}

Kelsey travelled through the Nelson-Hayes system, most probably following what later became known as the Middle Track between York Factory and the Saskatchewan River.^{14.}

^{13.} Henry Kelsey, "Henry Kelsey's Book being ye Gift of James Hubbud in the year of our Lord 1693," in A.G. Doughty and Chester Martin (eds.), op. cit., p. 2.

^{14.} The Middle Track ran from the Saskatchewan via the Summerberry River to Moose Lake and thence down the Minago River to Cross Lake on the Nelson. From Cross Lake the Hayes was eventually achieved either via the Carrot River or by the Bigstone and Fox Rivers. The Carrot River branch of the Middle Track is the only route between York and Saskatchewan that contains five large lakes as well as the requisite number of carrying places. See E.W. Morse, Fur Trade Canoe Routes of Canada / Then and Now, Ottawa, 1969, pp. 47-48.

As he approached the country of the Assiniboine Indians, he took possession of a point of land in the name of the Company. This point of land, which he called Deerings Point, became a sort of advanced base for his subsequent wanderings. Its location, in Kelsey's estimation, was six hundred miles southwest of York Factory. Kelsey also observed that Deerings Point was the main place of resort for the Indians going to the Bay to trade. From this information, it has generally been assumed that Deerings Point was a meander loop on the Saskatchewan River, most probably in the vicinity of The Pas, which was a major rendezvous for the Assiniboines trading at York. From Deerings Point Kelsey undertook two separate journeys with the trading Indians into the northeastern prairie-parkland which, in A.S. Morton's view, probably took him into the plains as far west as present Saskatoon.^{15.}

The contrast between Kelsey's first and second journals most probably relates to the instructions that were sent to him at Deerings Point prior to his second journey to the plains. Although these instructions have not survived, Governor Geyer reported in 1691 that "I have sent the said

15. A.S. Morton, op. cit., p. 113.

young man a new Commission, and necessary Instructions, with a Supply of those Things he wrote for, that he might better accomplish the End I sent him for, and gave him Charge to search diligently for Mines, Minerals, or Drugs of what Kind soever, and to bring Samples of them down with him."¹⁶. Thus, on his second excursion to the plains, Kelsey was to supplement his trade objective with a search for certain resources that might be of value to the Company. It is perhaps for this reason that he kept a diary and log of distances during his second journey. This would also appear to account for the more detailed descriptions of the landscape that characterize the second journal.

Whatever the precise nature of his instructions, it is obvious from his descriptions that Kelsey was not asked to comment on the agricultural qualities of the land. On two occasions, for example, Kelsey made due mention of mines. On August 6, 1691, he learned from the Indians of a river to the south that was blood red in colour and, from this, speculated that "it may run through some mine or other."¹⁷

¹⁶. Governor George Geyer, quoted in United Kingdom, op. cit., p. 275.

¹⁷. Henry Kelsey, "A Journal of a voyage & Journey undertaken/ by henry Kelsey through Gods assistance/ to discover & bring to a Commerce the/ Naywatame poets in Anno 1691," in A.G. Doughty and Chester Martin (eds.), op. cit., p. 10.

The following day he recorded slate mines along the banks of what was most probably the Upper Assiniboine.^{18.} Nowhere, however, does Kelsey describe the soils of the interior. Landform is mentioned only occasionally, while the nature of the climate is implicit in only a few phrases. Fauna, and particularly those employed for subsistence, are noted with some regularity. His most important observations, as in the case of so many early journals, were those relating to vegetation. Although the vegetation of the boreal forest is barely mentioned, the changing vegetation patterns of the prairie-parkland are noted in vivid and accurate detail. The following descriptions, written as Kelsey moved in the course of several days from parkland into prairie, can hardly be improved upon in capturing the visible essence of this transition:

August 12, 1691: "Now we picht again & about noon ye ground begins to grow barren heathy & barren in fields of about half a Mile over Just as if they had been Artificially made with fine groves of Poplo growing round ym..."

August 13 and 14 1691: "This day we pitched again ye Ground Continuing as before But no fir growing the wood being for ye most part poplo & Birch ..."

18. John Warkentin, The Western Interior of Canada, Toronto, 1964, p. 26.

August 20, 1691: "Today we picht to ye outtermost Edge of ye woods this plain affords Nothing but short Round sticky grass & Buffillo & a great sort of Bear ..."

August 22, 1691: "Now we pitched into the barren ground it being very dry heathy land & no water but here and there a small pond so we came to but could not see ye woods on ye other side ..." 19.

The word most frequently used by Kelsey in describing the grassland areas that he encountered was the term "barren". Kelsey's use of the term was not confined to the prairie proper, or the "barren ground" as he called it. He also employed it to describe the small grassland openings in the park country which, as he wrote were "barren in fields." To the Englishman of Kelsey's day, just as to the modern Englishman, the term barren is a strongly evaluative term. Applied to the landscape, it could be construed to denote a countryside that is sterile, unfruitful or unproductive. One cannot immediately conclude from this, however, that Kelsey judged the grassland to be infertile or incapable of agricultural production. Kelsey's use of the term in the adjectival sense has been interpreted as simply describing a landscape that was barren of, or devoid of, trees.

19. Henry Kelsey, op. cit., pp. 11-13.

Warkentin, for example, has written that "It is interesting that he considered the grasslands as barren - the first European reaction to the Canadian plains. But he used barren in the sense of the plains being without trees, not a lifeless wasteland."^{20.}

More recently Watson has interpreted Kelsey's description of the grasslands as an assessment of their agricultural worth. In discussing the role of illusion in the process of North American settlement, Watson has pointed out that nowhere has this been more evident than in the "mental picture that affected Canadian geography, namely the barrenness of the Prairies. The mental image of the prairies as barren and unprofitable began with Kelsey ... Kelsey's report came out in a mental context which led to the illusion of a western wasteland."^{21.} Thus was begun what Watson has called a mental equation which, from the time of Kelsey until the first farmers were successfully established on the treeless plains, was applied as follows: "bareness equals barrenness equals infertility equals uselessness for agriculture."^{22.}

20. John Warkentin, op. cit., p. 27.

21. J. Wreford Watson, "The Role of Illusion in North American Geography: A Note on the Geography of North American Settlement," The Canadian Geographer, Vol. XIII, 1969, pp. 15-16.

22. Ibid., p. 16.

In view of this apparent contradiction in the geographical literature on the Canadian grassland, it is relevant to refer to the observations of Carl Sauer, who has considered this problem in its geographical context in the United States. Sauer has pointed out that the English language does not possess a generic term for grasslands, although there are words for special types of grasslands such as meadows, glades and barrens.²³ In his study of American pioneer settlement at the turn of the eighteenth century in the Kentucky Pennyroyal, which was the first expansive area of grassland encountered in the trans-Appalachian settlement of the United States, all three words, according to Sauer, were used to describe the prairie landscape. The term barrens, however, gained ascendancy over the others. Sauer also found that the grasslands did not delay settlement in this region, and that the word barren as it came to be applied to the prairies of the Pennyroyal did not carry any negative connotations. It was used, according to Sauer, simply because the accustomed forest cover was absent. It might appear, then, that the first Englishman to view the Canadian prairies described

23. Carl Sauer, "The Barrens of Kentucky," in John Leighly (ed.), Land and Life, A Selection of the Writings of Carl Ortwin Sauer, Berkeley, 1964, p. 24.

them as barren ground, not because he judged them infertile, but because his language was inadequate.

Although Sauer has pointed out that there is no general word in the English language for grasslands, terms such as grass-fen, grass-country, grass-ground and grass land, all of which can only be considered general terms, were current in England in the eighteenth and early nineteenth centuries.^{24.} The term "prerie," moreover, was known in England before Kelsey's time,^{25.} but whether it had much currency at this time is not known. It is unlikely, at any rate, that Kelsey would have used the word prairie even if he knew it, for it appears to have been used to describe only the poorly drained or wet grasslands, including the tidal marshes of the French coast.

The word prairie in French derives from the root "pre".^{26.} The closest English equivalent to "pre" is meadow, the latter term frequently, although not always, being employed

24. J.A.H. Murray (ed.), A New English Dictionary on Historical Principles, Vol. IV, Oxford, 1888, p. 365.

25. Ibid., Vol. VII, Part II, p. 1,225.

26. P. Larousse, Larousse universel, Paris, 1922, Vol. 2, p. 657.

to describe poorly drained grass-lands. It is perhaps for this reason that Dobbs, in drawing from French sources, used the word meadow to refer to the grassland areas mentioned by La France and Jérémie, since it was much later that the term prairie came to be associated with the sub-humid grasslands in North America. It is also relevant to observe that the French in Canada first encountered extensive grassland in south-central Manitoba. Here, the term prairie was first employed to describe the tall grass vegetation of the ill-drained Agassiz lowland, otherwise known as the "true prairie". Kelsey, on the other hand, first employed the term "barren ground" when the country became, in his description, "very dry heathy land & no water but here and there a small pond."^{27.} One can not infer from this, however, that the dry nature of the grassland caused Kelsey to call it barren ground rather than meadow. The poorly drained tundra grassland, which Luke Foxe had seen in patches from the coast and called meadow, was also described as barren by Kelsey. The salient feature that both the tundra and the prairie have in common is the absence of trees and it

27. Kenry Kelsey, op. cit., p. 13.

would be difficult, even from a semantic point of view, to show that Kelsey meant anything more in his descriptions of both regions. Kelsey's use of the term barren in both instances is in the context of vegetation gradations on the land. Moreover, there is no evidence to suggest that Kelsey was in any way concerned with assessing these exotic environments as to agricultural potential, nor is there anything known of Kelsey's background to suggest that he was capable of making such an assessment.^{28.}

At the same time, it must be recognized that the term barren ground could mean much more to the readers of Kelsey's journals than simply land that was devoid of or barren of trees. It is instructive to observe that it was the treeless condition, more than any other characteristic, that formed the basis for adverse opinion regarding the suitability of the grasslands for agricultural settlement.^{29.}

28. In the most recent biography of Kelsey, Davies suggests that Kelsey was the son of a naval officer and joined the Company's service at a very young age. See K.G. Davies, "Henry Kelsey," in David M. Hayne, op. cit., p. 308.

29. D.R. McManis, "The Initial Evaluation and Utilization of the Illinois Prairies, 1815-1840," Dept. of Geography, Research Paper, No. 94, University of Chicago, Chicago, 1964, p. 44.

Besides the absence of wood, which was almost universally regarded as essential to pioneer life, the misconception that this was infertile land which would not grow trees runs a common thread through the history of the evaluation of grassland environments in North America. In Canada, as Watson has observed, this illusion persisted into the period of pioneer settlement. As late as 1882, John Macoun wrote that "the dweller in Ontario feels that to be out of sight of woods is a calamity. He also believes that land covered with forest is NEW and therefore richer than the prairie, and rejects the latter and takes to brush and forest."³⁰ Roughly the same might be said of the dweller in England, even at Kelsey's time. Living in a well-watered land where the only large areas of treeless terrain were essentially non-arable, it would be hard for him to conceive of a land that afforded "Nothing but short Round sticky grass" and bears and buffalo as potentially arable and fertile, especially if it was described as barren ground.

Lowenthal has pointed out that "As natives of places we acquire and assimilate information differently than

³⁰. John Macoun quoted in T.R. Weir, "Pioneer Settlement of Southwest Manitoba, 1889 to 1901," The Canadian Geographer, Vol. VIII, 1964, p. 64.

we do as travellers; and personal observation, whether sustained or casual, yields impressions different in quality and impact from those we build out of lectures, books, pictures, or wholly imaginary visions."^{31.} Although no definite conclusions can be arrived at, it appears that Warkentin is correct in asserting that Kelsey the traveller was describing rather than assessing the treeless landscapes that he encountered. It also seems that Dobbs, the voracious reader and visionary with a passionate interest in the agricultural qualities of these lands, ignored the term barren in collaborating with Robson, and used only terms that better suited his intentions. Finally, one might also hazard the opinion that those who read the Kelsey descriptions at the time of the parliamentary enquiry considered the country in question to be not only barren of trees but also unsuited for agriculture. However, as has been pointed out previously, Kelsey's descriptions were not incorporated into the public debate on the agricultural potential of Rupert's Land except insofar as they were used by Dobbs and Robson. There would therefore seem to be little justification

^{31.} David Lowenthal, "Geography, Experience, and Imagination: Towards a Geographical Epistemology," A.A.A.G., Vol. LI, 1961, p. 260n.

to assert, as Watson has done, that Kelsey gave birth to the illusion of a western wasteland.

Kelsey's descriptions also afford a brief account of resource differences between the park country and open grassland. He described the prairie he encountered as a plain affording nothing but grass and buffalo. He also indicated that at its most barren it was dry, although there were a few ponds here and there, and described how "great store of Buffilo" were killed by the Indians on the green plain. The parkland, in contrast, contained small poplar islands and ridges of woods. In the "high Champion [champaign] land" there was an "abundance of small ponds of water of which there is hardly one Escapes without a Beavour house or two our people having kill'd great store today."³² In his descriptions of the park country and the open prairie, Kelsey distinguished between salient faunal resources of the two zones. This fundamental distinction, it should be noted, later became embodied in two well-defined, albeit short-lived, regional concepts that evolved shortly after the Company settled inland. This was the distinction between

32. Henry Kelsey, op. cit., p. 14.

the Barren Ground, or prairie, and the Beaver Country
along its northern margin.^{33.}

Between the parkland and York Factory, according to Kelsey, there was nothing but forest. It was in the forest country, just one day's journey from Deerings Point, that Kelsey observed the wild rice that he likened to English Oats. Otherwise, Kelsey had little to say of the vast tract of forest that he had crossed.

The Company's records contain few details of Kelsey's voyage to the Interior Plains. It is even possible, according to Rich, that the Committee was not sent a copy of the journals when Kelsey returned to York.^{34.} Although Geyer reported the trading success that had accompanied Kelsey's endeavours, York fell to the French shortly thereafter and his explorations were subsequently ignored. Kelsey's contributions to the geographical knowledge of the interior, in consequence, were put to no use in the long

33. In 1781, for example, Robert Longmoor wrote at Hudson House on the Saskatchewan River : "A Small Gangs of Indians, arrived all from different quarters, but most from the Beaver Country and three of them from the Barren Ground." Robert Longmoor in E.E. Rich (ed.), Cumberland House Journals and Inland Journals 1775-82, Second Series, 1779-82, London, 1952, p. 178.

34. E.E. Rich, The History of the Hudson's Bay Company 1670-1870, Vol. I: 1670-1763, London, 1958, p. 299.

interval between his return to York and the beginning of the parliamentary enquiry in 1749. At this time, however, they became of great significance to the Company, for they afforded the only documentary evidence of inland exploration that the Company could produce at the enquiry. They also became available to men like James Isham at this time, who like the other overseas factors, laboured to increase the trade in complete ignorance of the information acquired by Kelsey.

B. INDIAN REPORT OF THE INTERIOR

From the time of Kelsey's trip to the prairie-parkland in 1690-92 until Henday's return from the same country in 1755, the only intelligence of the southern interior that reached the Bayside was the information communicated by the trading Indians. It was during this period, however, that the first indications of agriculture in the interior came to the attention of the governor at York. Following the Treaty of Utrecht, an attempt was made to increase the trade at York by sending gifts inland with the Indian trading captains in the hope that peace might be secured among warring factions in the interior. At the same time, the promise of further gifts was broadcast far and wide to entice

the distant nations to York. This policy was not without effect and drew Cree and Assiniboine bands, as well as Saulteaux, who hitherto had not been to York. Included among the strange Indians were the Mountain Indians who, according to Governor Knight, had travelled the farthest of any of the Indians trading at York. Having heard tales of silver and gold from two old men among them, Knight carefully cross-examined them and recorded the following in the post journal in 1717:

"here was 2 Upland Indians Old Men that I took Occasion to discourse ... abt. the Upland part of the Country that lyes between them & their Enemies I Examined one on one Day and apart and they both agreed in one thing they say the Country is very Mountainious and of a Prodigious heigh they be so they can not see the topps without it be clear Weather. they tell me their is abundance of Natives and ... Sevll Nations of them and their grows a great deal of Indian Corn Plumbs Hazzle Nutts and they have not much Beaver but abundance of Moose Buffolo Wapscathus [deer or elk] and other Small Furs they tell me the Sea lyes but a little way to ye Westwards of them. Mountains and all them Mountain Indians Garnish themselves with White Mettle ..." 35.

The Mountain Indians, who indicated that they had traded at York (then Fort Bourbon) some fifteen years earlier,

35. H.B.C., York Post Journal, August 28, 1717, B 239/a/2, fol. 57.

were perhaps the same people who afforded Jérémie his information on Indian corn and precious metals in the far interior. They are intermittently mentioned in the York post journal in the period 1715 to 1721, but little additional information is presented to facilitate their identification under that name.

A.S. Morton is of the opinion that these people did not come from the Rocky Mountains where, in any case, the Indians did not raise corn. Rather he assumes that the Mountain Indians were Mandans, who were the nearest agriculturalists at the time. The Mandans, according to Morton, were living in the headwater region of the Red River at this time. Hard pressed by the Saukteaux, who were equipped with guns from the French traders on the Upper Great Lakes, they undertook the long journey to the Bay in the hope of acquiring guns with which to stave off their enemies. Their tales of high mountains and a sea to the west were embellishments of the Rockies and the Gulf of Mexico that had been communicated from neighbouring tribes.

36.

36. A.S. Morton, op. cit., pp. 134-35.

Although the information relating to Indian corn in the interior might have been connected with the Mandans, there is no reason to assume, as Morton has done, that the Mountain Indians themselves grew corn.^{37.} Rather, from the information in Knight's report it is apparent that the Mountain Indians had learned of corn growing among nations somewhere beyond their own lands. The author has been unable to identify the Mountain Indians, who may have been the Gros Ventres, or the Naywatame Poets that Kelsey contacted and exhorted to trade at York Factory. It is more probable, however, that they were a band of Assiniboinés. The most likely candidates would have been the Mountain Poets that Kelsey encountered somewhere near the Touchwood Hills, as the Naywatame Poets had informed Kelsey that they did not know the use of canoes. It is also highly unlikely that the Mandans were still living in the drainage basin of the Red at this time. Will and Hyde, for example, date the Mandan migration to the Missouri to "at least" 1600.^{38.}

37. Ibid., p. 134.

38. G.F. Will and G.E. Hyde, Corn Among the Indians of the Upper Missouri, Lincoln, 1917, p. 35.

The Mountain Indians could have learned of corn growing from a variety of sources, as there were a number of tribes other than the Mandans who were horticultural at this time, and who lived within roughly the same radius of York Factory. Among the Missouri agriculturalists were the Arapahoe, the Arickara and the Hidatsa, the latter being northernmost of the Missouri agriculturalists when contacted by La Vérendrye in 1738.^{39.} The horticultural Indians nearest the Bay at the time of the Mountain Indian trade may well have been the Cheyenne, who were planting in the valley of the Sheyenne River in present North Dakota. The Sioux name for this river was the "Shaien wojubi," or the place where the Cheyennes plant.^{40.} David Thompson learned from a Saulteaux chief that the Cheyenne planted corn as well as vegetables in this area before they were driven to the southwest by the better armed Saulteaux.^{41.}

39. G.F. Will, "Indian Agriculture at its Northern Limit in the Great Plains Region of the United States," Proceedings 20th International Congress of Americanists, Vol. 1, 1924, p. 203.

40. G.F. Will and G.E. Hyde, op. cit., p. 43n.

41. David Thompson in J.B. Tyrrell (ed.), David Thompson's Narrative of his Explorations in Western America, 1784-1812, Toronto, 1916, p. 261.

Alexander Henry the Younger, who was probably more of an authority on this area than David Thompson, wrote in his journal of 1800 that the Cheyenne were driven from the Red River region about sixty years ago.^{42.} This would mean that the Cheyenne migration took place about 1740. However, as the La Vérendryes learned nothing of the Cheyenne in this location, it would appear that the movement occurred sometime prior to 1740.

Thus, as early as 1717, if not before, the Hudson Bay Company traders learned of agriculture somewhere in the remote interior. Whether in the period of the Mountain Indian trade they gained any reasonable notion of the location of this inland horticulture is not known. Most probably this was not the case, for it was not for some time that the Company gained any accurate impression of the Lake Winnipeg country, let alone of lands farther to the south and west. Within little more than a decade of the Mountain Indian trade, however, the French began to occupy the Lake Winnipeg area. This activity prompted the first serious proposal for a Company settlement inland, the plans for which appear to have been based almost solely upon Indian information.

^{42.} Alexander Henry in E. Coues (ed.), The Manuscript Journals of Alexander Henry and of David Thompson, Minneapolis, 1965, Vol. I, p. 144.

Despite the evidence which he gave to the contrary before the British House of Commons in 1749, James Isham had long been of the opinion that inland settlement would be to the Company's advantage in its competition with the French. As early as 1743, Isham took the liberty of informing his superiors that the Company was in "Error in Laying down port nelson Nelson" while, as he put it "the french as an old saying, not only Beats the Bush but run's away with the Hair also".^{43.} Isham wrote that:

"I do not think itt unpracticible for the English to make a Settlement at the head of port Nelson River, & to be supply'd from the Lower parts &c. where they might send the Indians to which place they please, or traffick with them their,- being a branch almost all Indians separates Either to go to York fort, or Churchill- this proceeding wou'd be of great service, for by so doing they might gett double the fur's they do now, by Reason of the Difficulty's the Indian meets with in Comming to the Lower parts, & in a few years might with god's will,- be able to roat the French out of that small Settlement they have at the great Lake, (or Little sea so call'd by the natives wch. is near the fork..."^{44.}

With a far inland settlement established at a strategic juncture of the Indian trade routes, Isham felt that the

^{43.} James Isham in E.E. Rich (ed.), Isham's Observations and Notes 1742-1749, Toronto, 1949, p. 69.

^{44.} Ibid., pp. 67-69.

fur returns could be doubled, and hopefully, that the French might be beaten back from their new settlement (Fort Bourbon established in 1741 on the west side of present Cedar Lake) near the head of Lake Winnipeg. The actual settlement site that Isham had in mind cannot be located, for he appears to have been dependent upon Indian report for this as well as other geographical information relating to the interior. However, he undoubtedly envisaged a location on the Saskatchewan River somewhere in the vicinity of Cumberland or Moose Lakes. This was the "fork" he had learned of from the Upland Indians, for this was the general area where the trading Indians separated for York and Churchill. Indians enroute to Churchill proceeded north through Cumberland Lake to the Churchill River via a series of small lakes, the Sturgeon-Weir River and Portage du Traite. Those with York as their destination paddled farther down the Saskatchewan, travelling either through Moose lake or Lake Winnipeg to eventually achieve the Hayes River and the settlement at its mouth.

From the information that he was able to assemble on the Bay, Isham was also convinced that the climate was a

great deal warmer in the far interior. He was therefore quite sanguine about the country in which he advocated establishing a settlement:

"altho it's so excessive cold downe by the Sea shore, its considerable more mild, & warmer, further in Land, where I think great improvements might be made in trade &c.- by making Settlements further in Land ... I do not Doubt' in Land 4 or 5 Hundred miles, but itt must be a fine Country, and the Climate quit Differt. to what it tis by the Sea Shore,- Having seen Severall Indians that has not Known what snow shoes was, they not having snow above 3 inches Deep all winter." ^{45.}

While making his case for inland settlement, Isham took the opportunity to remind the Committee that there were "Still men that wou'd undertake such a Land Voyage with good Encouragem't Either to bring them [i.e. the Indians] to the English forts to trade; or to give such a Description of the Country that a Settlement might be made their."^{46.} Even if a scheme of this nature was adopted, however, he was convinced that "a Settlement near the fork up port Nelson River wou'd be of great service in this undertaking &c.-^{47.} their is great plenty of Indn. corn in the said country."

^{45.} Ibid., pp. 67, 130.

^{46.} Ibid., p. 114.

^{47.} Ibid., p. 115.

Thus, in 1743, Isham perceived the country in the vicinity of the lower Saskatchewan as a great deal milder and warmer than the littoral of the Bay. He also saw this warmer environment as advantageous to inland settlement. Although nowhere does he specifically mention agriculture in this context, it was undoubtedly in his mind when he noted that there was "plenty of Indn. corn in the said country." Elsewhere he mentions only that the new settlement might be "supply'd from the Lower parts &c." It is most probable that Isham envisaged inland provisionment much in the manner that had become custom on the Bay, except that agriculture, with a focus on Indian corn, would be of greater assistance to European settlement in the warmer interior.

Isham's information on maize must have derived from the Upland Indians. However, his view that Indian corn was abundant in the vicinity of the Saskatchewan River was very much in error. There was no Indian corn culture within the drainage basin of Hudson Bay at this time. Other than along the Upper Missouri, corn was also being raised in the
48.
Upper Great Lakes region. In the latter case, it was

48. R.A. Yarnell, Aboriginal Relationships Between Culture and Plant Life in the Upper Great Lakes Region, Ann Arbor, 1964, p. 128.

located on islands or along the shores of Lakes Huron and Michigan and, during the latter part of the seventeenth and early eighteenth centuries, spread along the south shore of Lake Superior as far as the Fond du Lac.^{49.} As it is highly unlikely that Isham encountered Indians from this area, his information on Indian corn most probably concerned the Upper Missouri. The northernmost of the sedentary Missouri Indians had frequent contact with some of the Indians who regularly travelled to the Bay, and especially those who traded at York. The Crees, for example, were the first to inform La Vérendrye of these Indian agricultur-^{50.}alists, while the Assiniboines had been engaged in a trade with the Missouri Indians, including a trade in corn,

49. D.W. Moodie and B. Kaye, "The Northern Limit of Indian Agriculture in North America," The Geographical Review, Vol. 59, 1969, p. 527.

50. La Vérendrye heard of the Mandans from both the Crees and the Assiniboines almost from the moment he approached the West. In his earliest surviving journal, which was written in 1729, he wrote that he had learned from two Cree chiefs at Lake Nipigon that living at three hundred leagues distance from the Sioux and the Assiniboines were nations who are "sedentary, raise crops, and for lack of wood make themselves mud huts." See Pierre Gaultier, Sieur de la Vérendrye in L.J. Burpee (ed.) Journals and Letters of Pierre Gaultier de Varennes de la Vérendrye and his Sons, Toronto, 1927, pp. 43-45.

51.
for some time before the advent of the French. Isham's informants undoubtedly belonged to the same tribes. He appears, in consequence, to have associated the maize of the Upper Missouri with the country of the lower Saskatchewan. This confusion could have derived from an inadequate knowledge of distances as well as from misinterpretations concerning the legendary River of the West. Thus, although Isham was aware of a milder climate inland where Indian corn was plentiful and might support a settlement, the country to which this information applied lay almost twice as far inland as that which he recommended for the Company's first inland post.

Although most of these early views on inland explorations and settlement were eventually adopted by the Company, none of Isham's recommendations was acted upon by the Committee at this time. French competition had not as yet

51. What appears to be the first "recorded" instance of this prehistoric trade between the Assiniboines and the Missouri Indians was written by the Jesuit missionary, Father J.P. Aulneau, from Fort St. Charles on Lake of the Woods on April 30, 1736. "I intend, with as many of the french as are willing to encounter the same dangers, to join the Assiniboels, who start every year, just as soon as the streams are frozen over, for the country of the kaotiouak or Autelsipounes [i.e. Missouri Indians] to procure their supply of Indian corn." See Father J.P. Aulneau in Reuben Thwaites, The Jesuit Relations and Allied Documents, New York, 1959, Vol. LXVIII, p. 293.

seriously reduced the fur returns, while from 1740 to 1748 England was embroiled in the War of the Austrian Succession. Isham himself was aware that the war would forestall implementation of his plan, for in 1743 he wrote that "Being troublesome times in England Now, must certainly be the occasion why our Merchants of England Does not make further Discovery's ... having at present enough to maintain & Support the Settlements already in their possession." 52.

C. HENLEY HOUSE - OUTPOST INLAND

By the time of the parliamentary enquiry, which began shortly after the conclusion of peace, Isham appears to have reversed his position on the subject of inland settlement. Although he testified before the House of Commons that "If factories were made higher up I believe they would bring goods to the Factories," 53. he now came to view penetration of the forest belt more as a theoretical than a practical proposition. The rivers, he said, were shoal and full of rapids and boats could not be gotten inland with sufficient

52. James Isham, op. cit., p. 181.

53. Ibid., p. lxx.

cargo. At inland settlements, moreover, the Company's servants "wou'd not have the advantage of getting a Quantity of provisions as they do Lower down ... being such a Distance from the marshes, and Low Lands."^{54.}

Henley House had been in operation for several years and, by the time of the parliamentary enquiry, men like Isham had become acutely aware of the problems of maintaining an inland post. The hope that agriculture might render Henley House independent of English provisions had been dispelled shortly after its establishment, while the Crees who had promised to hunt for the inland garrison were of little assistance. They were sometimes manipulated by the French and, equally discouraging, took advantage of the competition to extort high prices for the few provisions they did supply. More important, the Company's first experience of subsistence hunting in the interior proved a severe disappointment. The game yields of the boreal forest fell far short of the accustomed returns from the immense shore marshes that flanked the coastal settlements. Although inexpert at inland travel, the men on the Bay finally solved the provisions problem at Henley by laboriously transporting

54. Ibid., p. 207.

foodstuffs upstream to the new post. Using poorly constructed canoes at first, and subsequently flat-bottomed boats, the post was supplied from Albany with English provisions and with geese that were hunted and pickled at the Bottom of the Bay.

Thus, Isham came to view inland transport and provisionment as the major obstacle to implementing his scheme of 1743. The former he attributed to the nature of the rivers flowing into the Bay, the latter to the paucity of local supplies. The forest environment to the south, in Isham's view, lacked the faunal food supplies of the expansive marshlands on the Bay. As far as he knew, moreover, no grain could be grown in this area. The latter, with the exception of the cereal experiment at Henley, was of course pure speculation. Whether Isham based this view upon Indian report, or upon the information in Kelsey's journals, which were available to him in London at this time, is not known. At best, Isham had in his possession no evidence of grain growing in the boreal forest. He was also of the opinion that the Indians, in any case, would prefer starvation to tilling the soil. Despite the practical problems that Isham emphasized in his testimony before parliament, he did not lose sight of the desirability of inland settlement and,

until his death at York Factory in 1761, continued to press the case for inland exploration.

D. THE INLAND WINTERING PROGRAMME

When, in the course of the parliamentary enquiry, questions had been raised as to the nature of the Company's lands, the realization was forced upon the Company that it was in many respects little better informed on the geography of Rupert's Land than were its critics in England. At the same time, the Company feared that its opponents, having failed in their attack upon the Company in parliament, might now attempt to physically challenge the monopoly trade. This prompted the Company in 1749 to order the construction of a small outpost at the Nelson estuary. The outpost, or Flamborough House, was to operate in conjunction with York to seal off the Nelson-Hayes entranceways into the interior. If an interloping expedition materialized, an additional post was to be built upstream at a place known as the lower forks. The latter was believed to be where the Nelson and the Hayes separated, for it was thought at this time that both were branches of the same river and that York was situated on an island. The Committee also ordered a survey to be conducted in the vicinity of York, having

been appalled by the lack of geographical knowledge in the part of its servants. The Governor at York was informed that:

"We have discoursed with most of Our Servants that have lived at York Fort of the Nature of the Land and the Scituation &c. to the Northward of the Factory and Wee do find them very ignorant in most things Especially in knowing the true distances of several places from the Factory and also from one place to another alledging that all the Information they can give us comes from the Indians who widely differ in their Account of Distances or at least that our people did not rightly Comprehend them and it is Surprizing to us that none of our Factors or Servants have had the Curiosity of Informing themselves thereof especially of places not far from York Fort." 55.

The outpost of Flamborough House was constructed in 1750, and Isham himself undertook two excursions in the hinterland of York that carried him up the Hayes River as far as its junction with the Fox. The Committee was satisfied with Isham's surveys and advised him to continue his geographical investigations. Although no interlopers appeared on the Bay, rumours of a French plan to build a post near the mouth of the Severn prompted Isham to again suggest that a servant be sent inland to draw the Indians to the Bay. With the intensification of French competition,

55. Governor and Committee quoted by E.E. Rich (ed.), Isham's Observations, op. cit., p. 322.

the Committee was now in a mood to consider any effort that might extend their trade. They were also, in the light of their recent experience in parliament, more inclined to consider an inland venture. Accordingly, in 1753, the Governor and Committee replied to Isham:

"As you are of the opinion that if a proper Person were sent a great way up into the Country with presents to the Indians, it may be a means of drawing down many Natives to Trade We approve thereof and if you have any Person at your Factory whom you think proper for that purpose and will undertake it you may assure him we will sufficiently reward him for any Service he may do the Company by such a journey." 56.

The following summer Anthony Henday set out on the first of a series of inland journeys which two decades later culminated in the establishment of Cumberland House. With the advantages of seaside trading diminishing in the face of increased French activity in the interior, Company servants, individually and in two and three man parties, accompanied the trading Indians on their annual wanderings in the interior in an endeavour to increase the flow of furs to the Bay. As the Seven Year's War began to draw to a close in favour of the English, the French commenced to

56. Ibid., p. 323.

withdraw and, by the fall of 1760, it was learned on the Bay that the French had abandoned all their posts in the western interior. Isham, however, felt that the continuation of the inland wintering programme was essential to maintaining the trade at York. Not only did the winterers succeed in diverting furs from the French, but they also occasioned a general expansion of the York Factory trade. The Indians, moreover, had come to expect the presence of Englishmen among them and, by the time of the French withdrawal, the Committee had come to accept the inland programme as an integral part of the Bayside trade.^{57.} Thus, the inland excursions were continued in the interlude between the French withdrawal and the advent of the Montreal Pedlars in the middle years of the next decade.

With the appearance of the English traders from Montreal, the Company intensified its inland programme. Between 1763 and 1773, some thirty-nine winterers were sent inland from York, although this number probably involved no more than twelve individuals, several of whom were engaged for more than one journey.^{58.} In the course of these expeditions,

57. E.E. Rich, The History of the Hudson's Bay Company, op. cit., Vol. II: 1763-1870, p. 15.

58. R.I. Ruggles, The Historical Geography and Cartography of the Canadian West, 1670-1795, unpub. Ph.D. Thesis, University of London, 1958, p. 722.

the Company's servants roamed over huge expanses of the interior which hitherto had not been travelled by Englishmen and of which the Company had only the dimmest notions. Although trade was the primary purpose of the programme, the wintering servants did much to expand the Company's knowledge of the land. This knowledge afforded the framework within which the plans for the first inland settlement were laid.

When Anthony Henday was sent on the journey that initiated the inland wintering programme, neither the Committee in London nor the Governor at York had any clear idea of the country inland from York and, more especially, of the nature and extent of the lands inhabited by the Upland Indians who annually traded at this post. Incredible as it may seem, the Hudson's Bay Company after seventy years of continuous trade was still largely ignorant of the middleman trade network. Over the years, a vast middleman trade machine had developed which, by this time, carried the Company's influence as far afield as the Rockies, the Upper Missouri and even beyond. Not until Henday returned from the interior in 1755 did the Company learn that most of the furs from the interior were obtained by the Uplanders, not by trapping, but by a jealously guarded traffic with the stone age tribes

of the more remote interior. They were thus unaware that the Indians Henday was sent to contact, and especially the Earchithinue (Blackfoot, Bloods, Piegiens and Gros Ventres), had already been incorporated into the Bayside trade by the middlemen.

Nor had they heard of the horse among the prairie-parkland tribes. All of the so-called Earchithinue were equestrian, while horses by this time were also coming into use among some of the Crees and Assiniboinies with whom the Company traded. In fact, when Henday returned to York Factory, his "Accounts of Horsemen being Inland were not credited."^{59.}

The Bayside traders, however, had acquired some knowledge of the inland routeways employed by the Uplanders and, from the latter, learned of the general location of the northernmost of the French posts. In a more general sense, they also knew of the three great phytogeographic regions of the Northwest. From the precursors to the inland winterers, as well as from Indian report, it was known that the forest country that lay inland from the Company's settlements was bordered on both the north and the south

59. Marginal note by Andrew Graham on an edited version of Henday's 1754-55 journal. See H.B.C., E 2/11, fol. 22.

by treeless zones. Little, however, was known with certainty about the intrinsic qualities of these three regions and almost nothing of their extent. The width of the forest belt southwest of the Bay was known with some accuracy. Nothing was known of the dimensions of the prairie, although some impression had been gained of the inland extent of the tundra.

From the reports of Company travellers to the tundra, and especially from the experience of living and gardening at the northern factories, there can be little doubt that, on the eve of the inland wintering programme, the Company viewed the tundra as inhospitable to settlement and prohibitive to any based upon agriculture. That some doubt remained about the suitability of the tundra for agriculture, however, is evident from the attempt to raise grain at Churchill witnessed by William Wales in the late 1760's. The latter, however, was an isolated attempt. By this time it was generally recognized that few garden plants could be grown at the tundra margin, and that country provisions in general were so limited in this zone that at Churchill "the Company is obliged to send out more provisions ...
60.
than they send to all the other settlements."

60. Andrew Graham in Glyndwr Williams (ed.), Andrew Graham's Observations, op. cit., p. 244.

Of the two remaining great phytogeographic regions of the Northwest, the boreal forest belt, except for the northern fringes settled by the Company's servants, and the prairie-parkland were known to the Company only through Indian report and the descriptions of Henry Kelsey. In the forest area settled by the Company a limited arable agriculture and animal husbandry had proven possible, but staple crops of grain had not been raised. Inland from the Company's settlements, notions as to the agricultural capabilities of the land were vague and confused. Although as early as 1717 the Company had learned that corn culture was practised in the interior, nothing appears to have been known with any accuracy of the localization of the rumoured horticulturalists, whose very remoteness seems to have been well beyond the pale of any meaningful knowledge in the Company's possession. Isham, however, had learned that Indian corn was plentiful in the vicinity of the "forks" up Port Nelson River, and was sufficiently convinced of the veracity of this intelligence to bring it to the attention of the Committee when he proposed establishing a settlement inland. Whether Isham retained this view until Henday was sent inland, or otherwise came to realize his error, is not known. Thus, some years before the parliamentary enquiry, it had been learned on the Bay that grain could be raised

somewhere in the interior. Nothing, however, was known of the geography of the Indian horticulture or animal husbandry as it in fact existed at the time.

By the time of Henday's journey, Isham had opined that cereal grains could not be raised in the forest interior. Of this, however, he was not certain. The only evidence he might have had for this statement was the failure of the cereal experiment at Henley House. Isham was also of the opinion that the climate was better inland, and could only have concluded from this that the forest environment to the south was potentially more fruitful than that adjacent to the Company's factories. Beyond the forest lay the parkland, a land abounding in beaver and interlaced with poplar and barrens. Farther still, the country became drier and the barren ground, which yielded only buffalo, commenced. The trees terminated where the barren ground began and so, for all intents and purposes, did the Company's knowledge of its chartered lands.

Even between the barren ground and the Bay, however, the country was still very much an enigma to the English. Kelsey's report dealt almost completely with the prairie-parkland, so that the intervening country was known only through Indian report. Even the most salient geographical

features of the forest interior were poorly comprehended at best. As late as 1754, for example, Isham had been unable to learn whether Lake Winnipeg was in fact a lake or a sea, having heard on several occasions from the Indians^{61.} that they had seen sailing vessels on this body of water.

No one was more aware of these deficiencies than James Isham himself. Long an advocate of inland exploration and settlement, Isham hoped to employ Henday to advantage on matters of this nature when the Committee finally accepted his proposal to send a man inland. Nothing is known of Henday, who was employed as a labourer and net-maker at York, to suggest that he was experienced in the ways of living and travelling in the country. Nor does his background suggest that he was trained to collect the information in the interior that Isham required. However, he was described as a bold and enterprising man and, whatever his shortcomings, they were put to the test prior to his long journey inland.

Isham astutely combined his orders to continue his investigations in the hinterland of York with a test ambulation for Henday at the height of winter. In February

61. H.B.C., A Copy of Orders & Instructions to Anthony Hendey Upon a Journey In Land Dated at York Fort June 26, 1754, A 11/114, fol. 173.

of 1754, he despatched Henday in the company of local Cree Indians to learn their language and to conduct a survey of the lower Hayes and Nelson Rivers. Henday, however, was instructed to collect more geographical information than the table of distances requested by the Committee. He was to note rapids, falls and other impediments to navigation and to record the width and depth of streams, to observe the vegetation, take soil samples and, if this were not enough to test the capabilities of Isham's would be scientist-explorer, Henday was also asked to "observe the winds and weather, Every two hours' and Remark in your wast Book." ^{62.}

Henday then set out on the circuitous route prescribed for him, dragging a measuring wheel up the Hayes River to the junction of the Fox, up the Fox to Split Lake, and then down the Nelson to York. On this cold winter journey, upon which Isham had placed a strict time limit, Henday demonstrated his ability to travel and live off the land with the natives. He did not, however, perform all the observations required which, in the middle of winter and pressed for time, would have been all but impossible. However,

62. H.B.C., A Copy of Instructions to Anthony Hendry Dated at York Fort Feby. ye 19th, 1754, A 11/114, fols. 166-67.

Isham duly reported the distances Henday had travelled and judged him a "proper" person for the inland journey, which was begun on June 26, 1754.

Henday's task, as seen from London, was a mission to the Indians to increase the trade at the Bay. In this Henday failed, at least insofar as the Earchithine were concerned. As is not generally credited him, he did succeed in persuading the Eagle Indians (Assiniboines living in the vicinity of the Eagle Hills in present Saskatchewan) to travel to the Bay, and this trade, according to Graham, soon became highly valued at York.^{63.} Isham, however, expected Henday's journey to accomplish much more than this. A keen and persistent student of nature, and of the country in which he had resided since 1732, Isham had long been at pains to learn about the interior from the trading Indians. When the first real opportunity presented itself in Henday, the interests of Isham the amateur naturalist were not in conflict with those of Isham the professional trader. Rather, they complemented one another, as can be seen from some of the following instructions to Henday:

63. Andrew Graham in Glyndwr Williams (ed.), op. cit., p. 206n.

"Observe the soil as you proceed, what trees herbs and mentioning in your journals when and where also take particular notice if there is any sort of minerals if you find any reserve some and mention the day and month and particular remark the place and situation where you may find such."

"Observe ... whether the Great Lake is a lake or not, whether it is an open sea, as I have been informed by several [Indians] it is a sea where ships are seen to pass by. Be particular in coming to the truth of this which is a material point."

"This will be sufficient for the first time, first to know the situation of the country and Indians and then please God we may better be able to send there the following year for to winter and bring such foreign Indians down to trade, also by this journey we shall know partly whether there is any possibility of making a settlement, a considerable distance up Nelson River or if such a settlement made at a considerable distance up Nelson River whether or no the Indians would bring double the quantity of goods to the said settlement in one year to what they do at present bring to the fort in one year."

"As you travel up Nelson River observe the track or branch the Indian parts out of Nelson River for to go to Churchill, or to come to York Factory and what distance up Nelson River as near as you can guess, what sort of a place whether plenty of woods or likely for a house there." 64.

In large degree, Isham's instructions afford a summary

64. H.B.C., A Copy of Orders & Instructions to Anthony Hendey Upon a Journey In Land Dated at York Fort June 26, 1754, A 11/114 fols. 173-174. It should be noted that spelling and punctuation in the above depart from the document referenced.

of the state of Company knowledge of the southwestern interior at this time. Isham obviously had no clear impression of the geography of the headwater area of the Nelson or of the distances the Indians travelled from the interior. His most interesting comments relate to establishing a settlement at the "branch" or "fork" up Nelson River, an obviously strategic location with respect to the inland trade. No mention is made of Indian corn at this location, nor is there any indication that Isham was directly concerned at this time with information relating to provisioning an inland settlement. The only needs for such a settlement mentioned relate to woodland. Isham by this time had read Kelsey's journals and perhaps was of two minds as to whether the "forks" was located in woodland or barren ground.

Henday is undoubtedly the most celebrated of the Company's inland winterers. This reputation is well deserved, for his efforts initiated the inland wintering programme and gained for him the distinction of being the first European to sight the Rocky Mountains in Canadian territory. Although it is debatable whether Henday heard of, let alone saw, the Rockies, he expanded the Company's knowledge of the Interior Plains well to the west of Kelsey's perambulations

and, at the same time, immediately surpassed the recorded endeavours of the French at western exploration. More important, he kept a relatively careful and detailed account of his journey and there is, in consequence, less disagreement over the route he followed than is the case with the majority of the inland winterers. It should be observed that few of these men left journals and, of those who did, the majority were virtually illiterate. This situation prompted Graham to remark in 1772 that "I have often reflected that the Accounts given us by Men sent Inland were incoherent and unitelligible."^{65.} The main exceptions to this statement were the accounts by Henday, Matthew Cocking and William Tomison.

Similarly, Henday's course is known with much more precision than that followed by the intrepid young Kelsey some sixty years previously, whose vague references to his whereabouts have prompted much scholarly debate on the subject. In contrast to Kelsey, whose instructions to search for mines and drugs were sent to him as an after thought, Henday was charged to make a number of specific

65. Andrew Graham quoted in E.E. Rich, op. cit., Vol. II, p. 34.

environmental observations. He was, in consequence, the first Englishman sent inland to report on the general nature of the inland country. Although his accounts leave a great deal to be desired in this respect, they must be considered the first in a long line of explorers' reports seeking to describe and interpret the geography of Western Canada. In consequence, Henday's accounts will be examined in some detail here, while those of the subsequent inland winterers will be considered only insofar as they shed additional light upon agriculture and related environmental qualities.

It should be observed at this point that Henday's original journal has been lost. There are, however, several variants of Henday's 1754-55 journal, all of which have been edited and apparently abbreviated in the process. Moreover, there is evidence that Henday communicated more information about the interior than has been included in the surviving versions of the journal. The best known version^{66.} is that published by Lawrence Burpee in 1907, which for

66. Lawrence Burpee (ed.), "York Factory to the Blackfeet Country - The Journal of Anthony Hendry," Proceedings and Transactions of the Royal Society of Canada, Third Series, Vol. I, 1907, Section II, pp. 307-64.

convenience is employed here except where pertinent information is contained in the others. Until recently a total of three versions of the journal were known to exist.^{67.} Williams, however, has located a fourth. All four have been consulted in the following analysis, while the descriptions of Henday's route employed are those published by Clifford Wilson^{68.} and J.G. Macgregor.^{69.}

Although the different journals agree in most respects, they diverge considerably in some entries, and especially those concerning possible sightings of the Rocky Mountains. Three versions of the journal are located among the Andrew Graham manuscripts, known collectively as Graham's "Observations." Included among these is the version published by Burpee. The fourth, or official journal, is also in Graham's handwriting, and is contained in the York post journal. This is the copy that James Isham sent to the Committee, and appended to it are Isham's comments on the

67. G. Williams, Andrew Graham's Observations, op. cit., p. 335n.

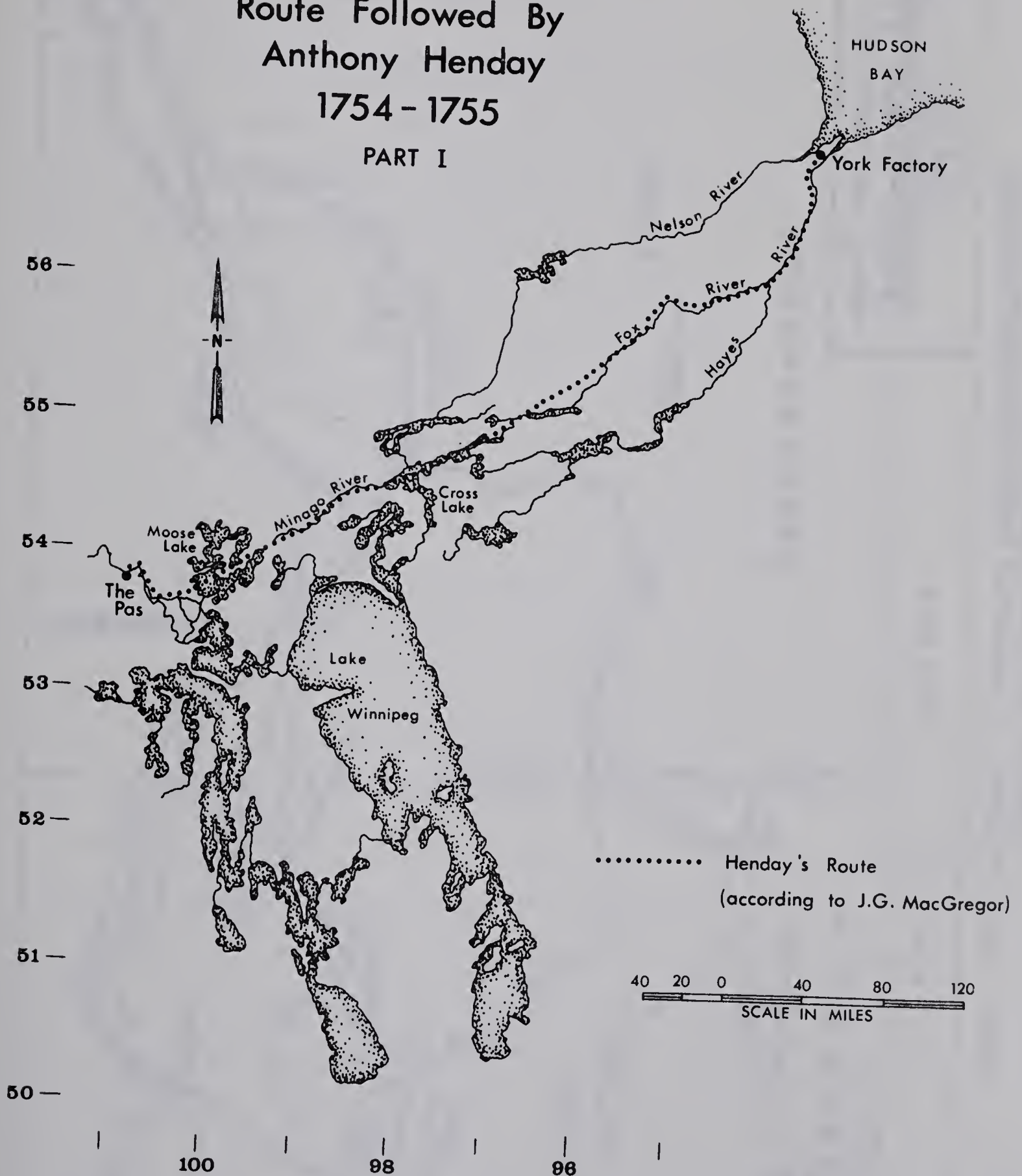
68. Clifford Wilson, "Across the Prairies Two Centuries Ago," Canadian Historical Association, Annual Report, Ottawa, 1954, pp. 28-35.

69. J.G. Macgregor, Behold the Shining Mountains, Edmonton, 1954.

Figure 7

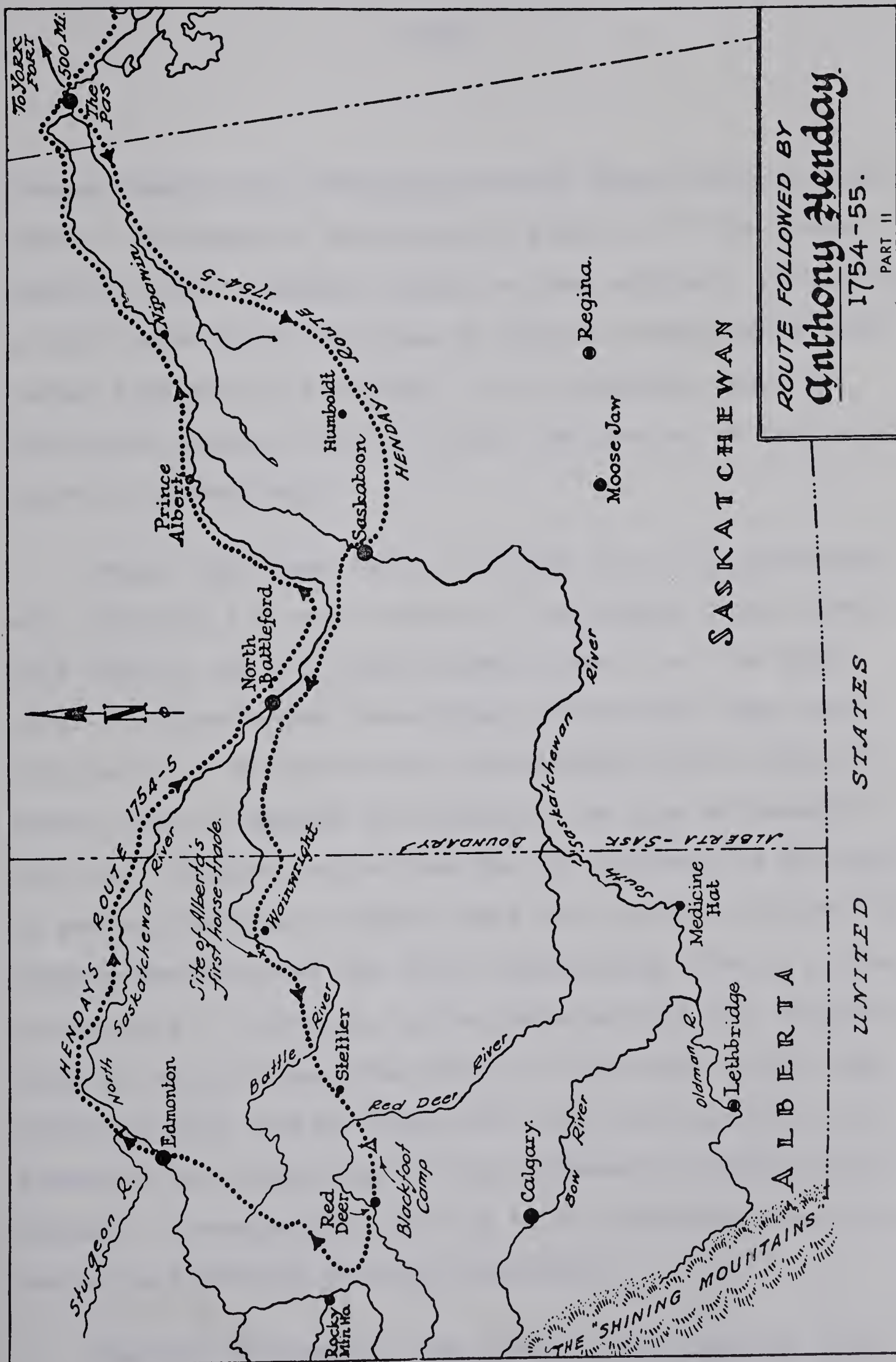
Route Followed By
Anthony Henday
1754 - 1755

PART I



Source: Modified from J.G. MacGregor in C.P. Wilson,
"Crossing the Prairies Two Centuries Ago,"
Canadian Historical Association Annual Report,
1954, p. 28.

Figure 8



Source: Modified from J. G. MacGregor, *Behold the Shining Mountains*,
Edmonton, 1954, page facing preface.

journey based upon conversations with Henday following his return. Although in the author's view one of the Graham versions (E2/6) appears closest to the original, the editing of all the variants was done by men who communicated with Henday following his journey. All, therefore, must be considered equally reliable until the problem of the variant journals is resolved.

Henday left York Fort in company with Cree middlemen, who travelled the north branch of the Middle Track between York Factory and the Saskatchewan River, i.e. the Hayes River-Fox River-Cross Lake-Minago River-Moose Lake route (Figure 7). He entered the Saskatchewan River below the French fort at Basquea or Paskoyac, the site of present The Pas. Henday's route from The Pas westward to the vicinity of present Red Deer, Alberta, and his return to The Pas via present Edmonton and the North Saskatchewan River is shown on Figure 8 . Although, as has been pointed out, Henday's route is better known than those of the other inland venturers of this period, there are large variations in both distances and directions in the different versions of his journal. Consequently, the day to day comments frequently cannot be localized with any precision.

Henday's transect of the boreal forest carried him

across the Canadian Shield. In contrast to Kelsey, who probably followed the same route, Henday recorded the distinct change in landscape that the Shield presented shortly after he passed out of the Hudson Bay Lowlands. The land became "high" and "rocky with shrubby woods" and the river was "full of large stones." From his vantage in the river, Henday formed an adverse opinion of the country through which he was passing. He recorded that the banks were rocky with very little woods. This caused him to comment: "The land looks very barren. We have neither seen fish nor fowl, so we are scarce of provisions."^{70.}

Six days before he reached the Saskatchewan, Henday met up with a group of Indians who traded with the French. Their leader informed Henday that he was "on the Confines of the dry inland country, called by the Natives the Muscuty Tuskee."^{71.} Henday adopted this Cree terminology in subsequent references to the inland country. The term Muscuty is frequently used in his journal, either in the form of Muscuty country or Muscuty plains. Moreover, Henday took pains to note where the Muscuty plains began and where they

70. Anthony Henday in L.J. Burpee (ed.), op. cit., p. 323.

71. Ibid., p. 325.

ended. The term Muscuty plains, in consequence, has come to be regarded as a regional appellation. Its meaning, therefore, is important to establishing Henday's impressions of the country through which he passed.

Most scholars of Henday appear to have made either strict or conflicting interpretations of the word Muscuty. A.S. Morton, for example, uses the term synonymously with prairie.⁷² In one context, Clifford Wilson refers to it as describing the true prairie but on the same page equates it with the word plains.⁷³ J.G. Macgregor has written that "It comes from the Cree word 'muskootao', meaning prairies or plains."⁷⁴ Although the prairies and the plains are spatially coextensive over much of Western Canada, which has caused the two words to be used interchangeably, they obviously mean quite different things. James Isham, who compiled an extensive Indian-English vocabulary that appears to be based on a mixture of Cree dialects, gives the word "tars kee" as the Cree equivalent for land.⁷⁵ In Andrew

72. A.S. Morton, op. cit., p. 246.

73. Clifford Wilson, op. cit., p. 31.

74. J.G. Macgregor, op. cit., p. 62.

75. James Isham in E.E. Rich (ed.), Isham's Observations, op. cit., p. 17.

Graham's Cree-English vocabulary "Tuski" means a country.^{76.}
There can be little doubt from this that Muscuty Tuskee
meant Muscuty Country. The problem is with the word Muscuty.
In Isham's vocabulary, grass or hay was called "Mus co shee,"^{77.}
which phonetically approximates Muscuty.

The Cree word for plains, on the other hand, is given
as "Kur s sku."^{78.} From this it would appear that Muscuty
Tuskee meant grass country, or prairie as the term is under-
stood today. Graham, in contrast, unequivocally states that
"Muskuti Tuski" means "A Level Country,"^{79.} which would mean
that Henday was referring to plains country, whether grass-
land or not. Other translations shed little light on the
apparent dilemma. In Alexander Henry the Younger's somewhat
later "Quinquelingual Vocabulary," for example, the Cree
word "Muscotaien" is translated as "Plain or Meadow."^{80.}
On the other hand, the modern Cree Indian, whose understanding

76. Andrew Graham in G. Williams (ed.), op. cit., p. 208.

77. James Isham, op. cit., p. 25.

78. Ibid., p. 26.

79. Andrew Graham, op. cit., p. 208.

80. Alexander Henry in E. Coues (ed.), op. cit.,
Vol. II, p. 535.

of the term might be radically different from mid-eighteenth century Cree usage, unhesitatingly associates Muscuty with prairie.^{81.}

Of the three historical vocabularies, only Graham's presents the two terms in juxtaposition and is a precise phonetic equivalent of Henday's Muscuty Tuskee. There is good reason for this. Graham, like Isham, was keenly interested in Henday's explorations, knew him personally,^{82.} and was involved in editing versions of the journal. Graham, however, wrote his vocabulary after Henday's return, while Isham's was composed more than a decade prior to the journey. From this information, it is apparent that Henday's Muscuty plains and Graham's Muscuty Tuskee were one and the same thing. Thus, the Muscuty Tuskee was seen from the Bay and perhaps by the man who explored it, as a "Level Country." Unlike Kelsey, who was struck by the treeless aspect of the country, Henday, who proceeded from York in the certain knowledge of the existence of the grasslands, was struck by the immensity of the country through which he travelled. Time and time again he notes almost in amazement:

81. Pers. comm. from Mr. Stanley McKay, Winnipeg. Mr. McKay has served as a Cree language instructor at the University of Manitoba.

82. G. Williams (ed.), op. cit., pp. lxviii, 335n.

"We are yet in Muscuty plains." It was perhaps the vast extent of level ground more than any other feature that left its main impression on Henday.

From Henday's journal, however, it is almost impossible to ascribe any physical boundaries to the Muscuty plains. Henday was undoubtedly dependent upon his Cree companions for information on where the Muscuty country commenced and where it ended. The latter appear to have been very dilatory, if not unco-operative in communicating information to Henday on a number of matters. For this reason, it seems, there is no noticeable change in Henday's descriptions of the physical characteristics of the country when he remarks upon entering and leaving Muscuty plains.

Henday first entered Muscuty plains on August 13, 1754, when he was somewhere between Humboldt and Saskatoon, Saskatchewan. On that day he wrote: "Level land, short Grass, Dry-woods, and several salt lakes. We are now entered Muscuty plains." ^{83.} In another version of the journal, his remarks on the same day were recorded as

83. Anthony Henday in L.J. Burpee (ed.), op. cit., p. 328.

follows: " ... what wood here is dry, and Grass very Short^{84.}
& thick ye Indian name for this place is Muscuty."

Although from these excerpts it might appear that some prominent change in the landscape caused Henday to notice the beginning of the Muscuty Country, two days previously he had written: "Level lands, short grass; no woods; and^{85.}
no water but what is salt," while for several days before he consistently recorded level ground.

Two and a half months later, Henday left the Muscuty Country. Writing while he was in the vicinity of Red Deer, Alberta, he recorded his departure as follows: "Left Muscuty plains, which I have been in since 13th August & travelled 5 Miles West. Level lands. Tall woods, & plenty^{86.}
of Creeks." Although it might appear from this description that the beginning of tall woods, of closed woods or of better watered land marked the end of Muscuty plains, Henday had noted "Level land with poplars; a great many small Creeks & ponds" for several days prior to leaving

84. H.B.C., York Post Journal, B 239/a/40, fol. 9.

85. Henday in Burpee, op. cit., p. 328.

86. Ibid., p. 341.

the Muscuty Country, as well as "ledges of large birch,
Creeks, ponds."^{87.}

To these Cree middlemen of the eighteenth century, the term Muscuty Tuskee probably meant some equivalent of grass country. From Henday's descriptions, however, the concept appears to have been very loosely applied by these itinerant traders. Not only did this regional terminology include the prairie, which the literal translation of the term implies, but it also embraced large portions of the parkland, since the greater part of Henday's travels in the Muscuty Tuskee lay within the park belt as the term is understood today. The Crees also appear to have distinguished the parkland and adjacent grasslands, into which they were expanding from east to west at this time, from the purely grassland country to the southwest inhabited by the Blackfoot tribes and Gros Ventres. This distinction is implicit in only one of the journals and was written as Henday approached the lands of the latter tribes. On October 29, he wrote "I have been since the 13th of August in muscuty plains; the Indians [i.e. Crees] calls the Archithinue Country by another name, which is Assinee Warchee

87. Ibid., p. 340-41.

88.
(i.e. dry Country)." When he left the Muscuty plains two months later, this was recorded in the same journal as follows: " ... I had a fine prospect of Muscuty, or Arsinee Warchee Country, and seed the Archithues smoak this will be the last time I shal see that delightful country this trip inland."
89.

The term Assinee Watchee means stone hills or stone mountains and has afforded the evidence for Henday's
90.
having sighted the Rockies. The two quotations above have also been employed to cast serious doubt upon this
91.
claim. This particular controversy is irrelevant here, although it is pertinent to point out that Henday could with equal validity refer to the Earchithinue country as dry country, muscuty country or as Assinee Watchee country. It is also apparent that the term Muscuty Country carried with it a variety of connotations - a level country, a grass country and dry country - and was so loosely applied that no clear distinction between prairie and parkland emerges

88. H.B.C., E 2/6, fol. 23.

89. Ibid., fol. 29.

90. Clifford Wilson, op. cit., p. 31

91. Glyndwr Williams, "Highlights of the First 200 Years of the Hudson's Bay Company," op. cit., p. 26.

from the journals. As an organizing concept, in consequence, it confuses rather than clarifies. At the same time, however, it was used in a manner that revealed the salient physical characteristics of the country southwest of the forest traversed by Henday. The Muscuty Tuskee was in fact a relatively dry, flat, grass-covered country and, from Henday's descriptions there can be little doubt that he perceived it as such.

With the exception of the Interior Plains, which are identified only in the context of the Muscuty plains, Henday failed to generalize about the different physical regions through which he passed. He was, however, the first Englishman to note the landform characteristics of the Canadian Shield. He also commented briefly on the nature of the boreal forest in this region. His most detailed observations, however, are his descriptions of vegetation and landform in the huge area of prairie-parkland that he traversed. Fauna, and particularly the fur-bearing and food animals of the prairie-parkland, are also noted throughout the journal. The widths of the different streams are recorded and their navigational characteristics frequently described. On very few occasions are surficial deposits or mineralization mentioned. Nowhere is there any mention of the soils of this region. There are, however, numerous

observations in the journal that shed considerable light on the nature of the climate in the prairie-parkland. There is also a considerable body of information on the Indians of this region.

In contrast to his comments about the forest, and particularly that of the Canadian Shield, Henday wrote a glowing account of the prairie-parkland. As, in the course of his travelling, the forest of east-central Saskatchewan began to thin, he recorded: "I am now entering a pleasant and plentiful country."^{92.} The same entry was recorded as follows in another version: "The Country and weather so fine and pleasant, beyond description, I cannot think myself at present in North America."^{93.} After having travelled for several days in prairie country, he commented: "fine land, no woods; several salt-water Lakes."^{94.} A month later, but this time obviously in park country, he virtually exclaimed: "I cannot describe the fineness of the Weather, and the pleasant country I am now in."^{95.} Even in the dead

92. Henday in Burpee, op. cit., p. 327.

93. H.B.C., E 2/6, fol. 14.

94. Henday in Burpee, op. cit., p. 329.

95. Ibid., p. 335.

of winter, Henday appears to have lost little of his enthusiasm for the land. In late February, while travelling in parkland between Leduc, Alberta, and the North Saskatchewan River, he again pointed out that he was "in a pleasant and plentiful country."^{96.}

Henday was most sanguine in his comments when he was in park country. He commented frequently on the numbers of large food animals, and especially moose, elk and buffalo. On August 14, for example, he remarked: "The young Men hunting, killed several Moose and Waskesew [elk]; provisions plenty and good food."^{97.} He described the buffalo as of "the size of English Cows,"^{98.} and "in great droves like into Smithfield Market."^{99.} He also remarked that the Indians living "in this plentiful country ... can well do without any European support."^{100.}

Henday also commented most favourably on the edible vegetation of the park country. There is frequent reference

96. Ibid., p. 335.

97. Ibid., p. 328.

98. H.B.C., E 2/6, fol. 15.

99. Ibid., B 239/a/40, fol. 17.

100. Ibid., E 2/4, fol. 44.

to the Crees gathering fruit, causing Henday at one point to remark "We are yet 400 in number, two-thirds of whom live chiefly on fruit."^{101.} He also observed "cherry trees, on which are plenty of fruit, plenty of Filberts,"^{102.} "fields of tares ... full and ripe as any in England,"^{103.} and "Shrubs and fine berries, like into black currants."^{104.} Thus, Henday described the parkland as a bountiful country, prolific of both fauna and flora that ensured a plentiful supply of provisions.

Henday's only adverse comments relate to the large areas of open grassland that he crossed. On August 26, for example, he commented "the land level; no woods; but plenty of fine grass. Saw two Buffalo feeding."^{105.} However, a few days later he commented: "Level Barren land, not one stick of wood to be seen, & no water to drink."^{106.} On

101. Henday in Burpee, op. cit., p. 331

102. Ibid., p. 327.

103. Loc. cit.

104. Ibid., p. 329.

105. Ibid., p. 330

106. Ibid., p. 330.

another occasion, he notes traversing "a barren plain, not one drop of water in it,"^{107.} and shortly thereafter commented: "The greatest hardships I have yet experienced is the Warmness of the weather, and the want of Water."^{108.} Although the absence of trees proved inconvenient on the prairie, Henday was most critical of "the want of sweet water"^{109.} in this region. Henday frequently used the term barren to describe the grassland, but in no sense seems to have considered it infertile, as is obvious from the following excerpt: "Level barren land, dry and full of fine grass."^{110.} Like Kelsey, he employed the term barren to indicate an absence of trees. Unlike Kelsey, however, he also used other words to describe the grassland. On one occasion, for example, he wrote of "fine levell Meadow Land;"^{111.} on another of "fields of french grass."^{112.}

Henday depicted the climate of the prairie-parkland as

107. Loc. cit.

108. Ibid., p. 332.

109. H.B.C. E 2/6, fol. 18.

110. Ibid., fol. 16.

111. Ibid., B 239/a/40, fol. 10.

112. Ibid., fol. 9.

relatively warm and mild. From his observations of frost, snow, freezing and thawing, as well as his comments upon wearing apparel, it is obvious that Henday enjoyed an exceptionally long, warm autumn as well as an unusually mild winter, at least by present day standards. On September 11, for example, he complained of the warm weather,^{113.} while not until January 11 did he remark that "The winter is set in in good earnest so that we change from leather to fur clothing."^{114.} On February 1 he noted: "preparing Snowshoes: I have wore none yet."^{115.} Throughout much of March Henday recorded alternate freezing and thawing. However, the North Saskatchewan River near Edmonton did not break-up until April 23,^{116.} which was five days later than the average at Fort Edmonton in the period 1796-1870.^{117.} Thus Henday strongly confirmed Isham's view that the climate was warmer in the interior. However, Henday's descriptions, with the exception of the latter part of winter, exaggerated

113. Henday in Burpee, op. cit., p. 332.

114. Ibid., p. 345

115. Ibid., p. 346.

116. Ibid., p. 349.

117. A.J.W. Catchpole, et. al., "Content Analysis: A Method for the Identification of Dates of First Freezing and First Breaking from Descriptive Accounts," The Professional Geographer, Vol. XXII, 1970, p. 256.

somewhat the climatic characteristics of the Alberta parkland in fall and winter.

Thus, Henday brought back to the Bay a fairly detailed description of the interior, and especially of the parkland, the western half of which he had travelled in the course of his journey inland. Henday also brought back the first account of equestrian Indians. The Crees with whom he was travelling had a few horses. Some Assiniboines who joined them appear to have had more but, like the Crees, used them only as pack animals. The horse was just beginning to appear among the Crees and Assiniboines at this time, for they were not sufficiently familiar with these animals to have become horsemen in the proper sense. Not until he met the Earchithinue did Henday encounter a truly equestrian tribe. The horse appears to have been in use among the Gros Ventres and Blackfoot tribes for at least a decade or two prior to Henday's journey, ^{118.} for the latter had fully converted to the plains horse culture by Henday's time. Henday reported that their horses were "fine tractible animals, ^{119.} about 14 hands high; lively and clean made." He also

118. John C. Ewers, The Horse in Blackfoot Indian Culture, Bureau of American Ethnology, Bull. 159, Washington, 1955, pp. 15-19.

119. Henday in Burpee, op. cit., p. 338.

observed "four Asses" among the Archithinue. It is unlikely that the latter were asses or donkeys. Most probably they were mules which, like the horses, had originated from the Spanish settlements in Texas and New Mexico. Henday also observed that these natives were good horsemen and were expert in hunting buffalo from their mounts. In taking leave of one of Earchithinue tribes, who were most probably Bloods, he remarked "They are more like English than Indians,^{120.} have great plenty of fine horses" Although the information on horsemen in the interior was initially discredited by some of the men at York Factory, it was shortly thereafter verified by the reports of other inland winterers. Henday also observed that the Earchithinue "have plenty of tobacco^{121.} ... of their own ... they think little of our own tobacco." In another version, he remarked that the Earchithinue tobacco^{122.} was "dryed Horse-dung." This was obviously a comment on the quality of the tobacco, rather than a description of its origin. There is no evidence in the journals, however, to indicate that Henday was aware that the Indians cultivated this tobacco.

120. H.B.C., B 239/a/40, fol. 35.

121. Ibid., fol. 19.

122. Henday in Burpee, op. cit., p. 339.

Although Henday did not return to the Bay with any evidence of aboriginal cultivation in the prairie-parkland zone, it is probable that he encountered evidence of gardening at one of the French posts on the Saskatchewan River. Henday spent several days at Fort Paskoyac both on his way inland and on his return. He also visited Fort St. Louis on his return to the Bay. Although he makes no mention in his journal of the French raising food at either Paskoyac or St. Louis, there is some evidence to suggest that gardens were a common feature at the French posts in the West.

As early as 1733, for example, La Vérendrye planted Indian corn at Fort St. Charles on Lake of the Woods with the objective of eliminating the expense of transporting this commodity from Michilimackinac.^{123.} The corn yielded well but was harvested green. La Vérendrye also distributed maize to two Indian families living in the vicinity of the fort with a view to converting them to gardening.^{124.} Although it is apparent that the experiment with the natives

123. La Vérendrye in L.J. Burpee (ed.), Journals & Letters of La Verendrye and his Sons, op. cit., pp. 96-97.

124. Ibid., p. 142.

failed, no information is available on subsequent agricultural activity at Fort St. Charles.

Father Antoine Champagne is of the opinion that the gardening begun at Fort St. Charles was later extended to the other French posts.¹²⁵ According to Champagne, grain was first planted within the boundaries of present Manitoba by the French at Fort Paskoyac.¹²⁶ Champagne refers to Henday to support this assertion: "Henday informs us that in passing Fort Paskoya in 1754, he ate grain cultivated in the neighbourhood of the establishment."¹²⁷ Nowhere, however, does Henday make a statement of this nature. Henday dined with the French at both Paskoyac and St. Louis. In 1755, while at Fort St. Louis, he wrote: "The Master invited me to supper, but we had no bread until we were done; then He presented me with half a biscuit and a dram of French Brandy."¹²⁸ This, however, cannot be construed as evidence

125. Father Antoine Champagne, Les la Vérendrye et Le Poste de l'Ouest, Quebec, 1968, p. 435.

126. Loc. cit.

127. Loc. cit., The quotation above is the author's translation of the following: "Henday nous apprend qu'en passant au fort Paskoya en 1754, il mangea des grains cultivé dans le voisinage de l'établissement."

128. Henday in Burpee, op. cit., p. 352.

for French cereal cultivation in the vicinity of The Pas.

None of the journals of the subsequent inland winterers contains references to gardening at either the French or Pedlar posts. If there was gardening, and especially at the posts on the Saskatchewan River, it would undoubtedly have been learned of by the Hudson's Bay Company's winterers. There is, however, good evidence for French gardens at their Saskatchewan posts. Alexander Henry the Younger, for example, recorded the following in 1808: "camped at the spot where the French formerly had an establishment called Fort St. Louis, built ... in a low bottom on the S. side [of the Saskatchewan River], where some years ago were still to be seen remains of agricultural implements and carriage-wheels." ^{129.} That the French had gardens along the Saskatchewan was apparently common knowledge among the later fur traders. Sir Alexander Mackenzie wrote that at both Fort St. Louis and The Pas "they had agricultural instruments and wheel carriages, marks of both being found ^{130.} about both establishments." A.S. Morton has further

129. Alexander Henry in E. Coues (ed.), op. cit., p.482.

130. Alexander Mackenzie in W. Kaye Lamb (ed.), The Journals and Letters of Sir Alexander Mackenzie, Toronto, 1970, p. 118n.

remarked that the Cree name for the site of Fort St. Louis meant "the place where we first saw vegetables grow."^{131.}

Although Henday did not bring back evidence of agriculture in the interior, his accounts of the Muscuty Tuskee were interpreted by Isham as indicative of a land that was potentially much more fruitful than any hitherto known to the Company. In his report to the Committee, Isham remarked that "Captain Henday observes the moderate climate therein"^{132.} and went on to describe the evidence that pointed to this conclusion. He also observed that Henday had found the Muscuty Country to be "a fine pleasant country, with plenty of provisions, he says there is plenty of fruit of severall sorts, such as plumbs, damsons, cherries, nuts, filberts and raspberries &c."^{133.} Observations of this nature were of great interest to Isham, as is manifest in a letter which he sent to Henday some months after the latter had left York Fort. Isham wrote that "An Earchithinue that is Heare tells me there is wild Goats, Nutts Apples &c. in

131. A.S. Morton, Under Western Skies, Toronto, 1937, p. 137.

132. James Isham in H.B.C., York Post Journal, B 239/a/40, fol. 42.

133. Ibid., fol. 38.

their Country, I desire you will be particular in your journals." ^{134.} It was because of interests of this nature that Isham, following his discourses with Henday, further reported to the Committee that "in the English Archithinne Country ... there are plenty of horses, goats [antelope] very large, and turkeys [possibly sage hens] plenty and full as large as in England." ^{135.} The only adverse environmental statements in Isham's report related to Henday's ^{136.} comments about the dearth of sweet water in places.

As he had done in the past, Isham again proposed that an inland settlement be established. He supported his views with a map drawn from Henday's descriptions but the latter has not survived. Almost immediately following Henday's return, Isham sent Henday back inland with an English companion. The latter, however, fell ill and both men returned following only a short absence from the fort. Because of this misfortune, there was no further inland exploration from York in 1755. The following year Isham

134. Ibid., James Isham to Anthony Henday, York Fort, September 14, 1754, A 11/114, fol. 181.

135. Ibid., York Post Journal, B 239/a/40, fol. 43.

136. Ibid., fol. 39.

instructed Henday "to take a true and Exact acct. of the place he entemates, for a Settlement, computed 500 miles up."^{137.}

The proposed site was probably at the inland "branch" or "forks" previously mentioned. However, misfortune struck again with sickness forcing Henday to return to York after he had travelled only a short distance inland.

Henday's return saw Isham abandon his interests in inland settlement. By this time, the Committee had communicated their opposition to his plans for an inland post, although they had approved the idea of sending men inland to draw the Indians to the Bay. The inland wintering programme that was born in the wake of Henday's epic journey, in consequence, was not conceived of as a preliminary to inland settlement, but simply as an expedient to bolster the Bayside trade. Any hopes that Isham might have had of convincing the Committee otherwise disappeared with the news of the massacre at Henley House in 1755 and the announcement in the general letter of 1756 of the outbreak of the Seven Year's War.

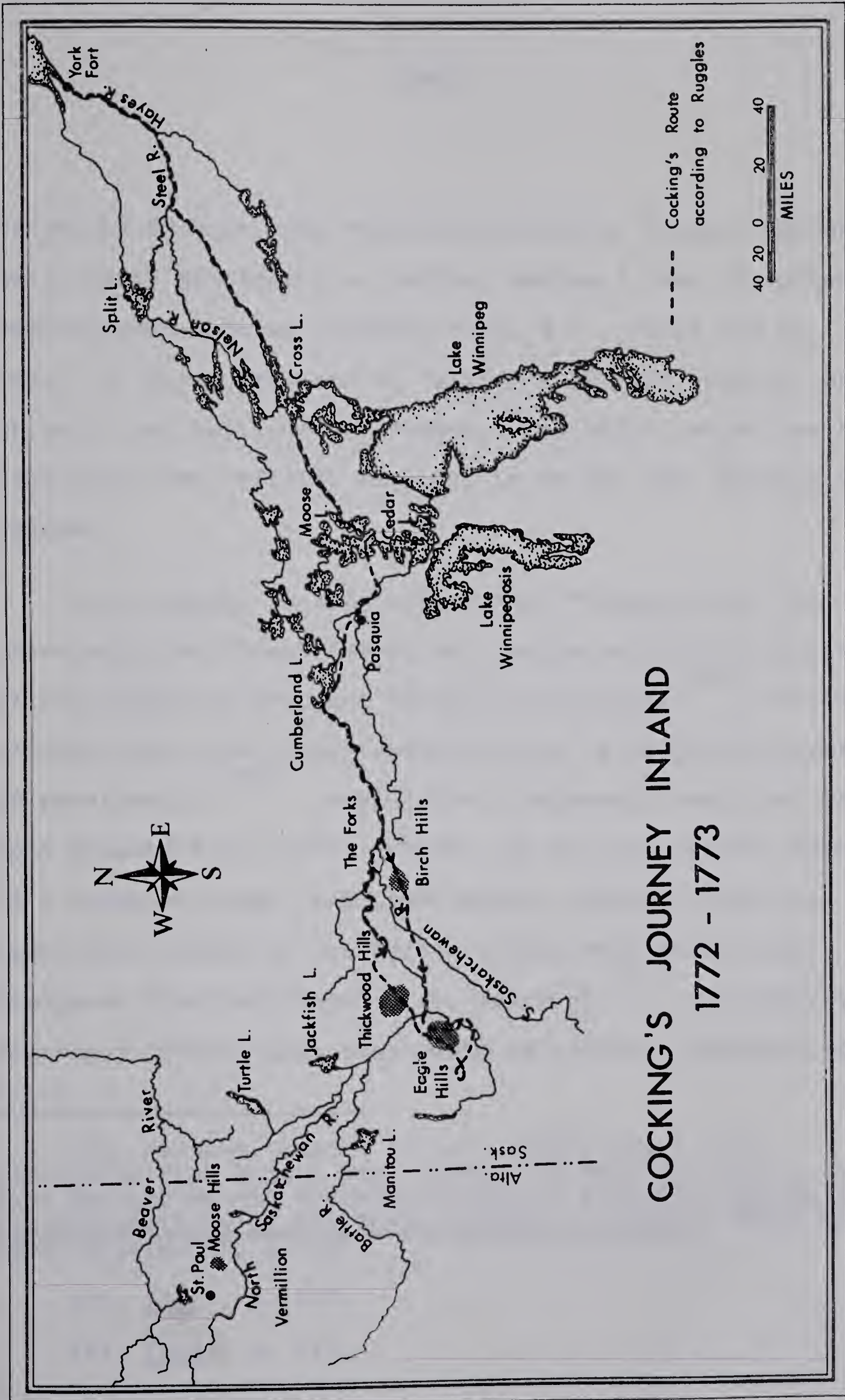
^{137.} James Isham quoted in E.E. Rich, The History of the Hudson's Bay Company, 1670-1870, op. cit., Vol. I, p. 642.

In accordance with his instructions, however, Isham sent Joseph Smith and Joseph Waggoner into the interior in the late summer of 1756. Their purpose was to bring the Indians down to trade. There was nothing in their instructions of any note except that they were ordered to keep "a Journal of what occurs daily to your view."^{138.} Thus was begun a series of inland expeditions whose objectives were confined to expanding the trade at York. Frustrated in his endeavours to establish an inland post, Isham's views shifted to the Bayside, where he advocated the establishment of an additional settlement. While on leave in England in 1758-59, he convinced the Committee that the inroads of the French might be mitigated by building a post at the mouth of the Severn River. His proposal was approved in 1759 and the post was built the following year.

With the exception of the accounts by Cocking and Tomison, none of the journals of the inland winterers surpasses that of Henday in terms of affording environmental information that could have shed additional light on the agricultural potential of the interior. Cocking in 1772-73

138. H.B.C., Orders to Joseph Smith, and Joseph Waggoner, York Fort August 20, 1756, A 11/115, fol. 2.

Figure 9



Source: Modified from Richard I. Ruggles, The Historical Geography and Cartography of the Canadian West 1670-1795, Unpub. Ph.D. Thesis, The University of London, London, 1958, Vol. II, Fig. 111.

travelled through much the same country as Henday, although he probably penetrated no farther westward than the present Saskatchewan-Alberta boundary (Fig. 9). There are at least two known versions of Cocking's 1772-73 journal, one of which was published by Burpee. The other, which can be considered the official version, is in the York Factory Post Journal.

Like Henday, Cocking experienced "Hungry times" in traversing the boreal forest and complained of the paucity of provisions in voyaging through this region.^{139.} He also remarked that the prairie-parkland was "A plentiful Country of provisions."^{140.} Cocking most frequently described the open grassland as barren ground. He did not use the term in a negative sense, and like Henday, observed that the equestrian people of the barren ground were "more like Europeans than Americans" [i.e. natives].^{141.} On several occasions Cocking also took pains to note the termination

139. Matthew Cocking in L.J. Burpee (ed.), "An Adventurer from Hudson Bay, Journal of Matthew Cocking, from York Factory to the Blackfeet Country, 1772-73," Proceedings and Transactions of the Royal Society of Canada, Third Series, 1908, Section II, p. 97.

140. Ibid., p. 107.

141. Ibid., p. 111.

of the Woody country, or the "Pusquatinow" as the Assini-
boines called it.^{142.}

Cocking was the first of the Company's servants to record tangible evidence of agriculture in the interior. In western Saskatchewan somewhere between the Battle and South Saskatchewan Rivers, Cocking recorded the following in the autumn of 1772:

"This day I see what the Indians say is a Yachithinee [Earchithinue] Tobacco Plantation. A small plot of ground about an hundred yards long and five wide, Sheltered to the Northward by the Ledge, and to the Southward by a ridge of high ground, there appeared to have been several fires upon it, burnt wood laying in many places, which the Natives tell me had been done in the Spring to prepare the Ground for planting." 143.

This was the only agriculture possessed by the Indians of the Canadian plains at this time. Tobacco culture appears to have been continued among the Blackfoot until sometime after the turn of the century, following which it was replaced by fur trade tobacco and disappeared from the Canadian plains.

142. Idem., in H.B.C., Journal of a Journey Inland with the Natives by Matthew Cocking Second at York Fort; commencing Saturday 27th June 1772 and ending Friday 18th June 1773, York Post Journal, B 239/a/69, fol. 9.

143. Ibid., fol. 19.

Cocking was also the first Englishman to comment on the soils of the prairie-parkland. Just a few miles above the old French Fort of St. Louis, and shortly after he had left the forest behind him, Cocking briefly noted the black soils of the parkland. "The Country within about a mile of the river (where small wood chiefly Spruce grows) hilly producing short Grass in general except in the gullies about a foot high; low Willows and Ponds in places, abundance of vermin Holes; the Soils a fine black Mould."^{144.} Later, in open grassland in Western Saskatchewan, he wrote of "A barren sandy soil, very little grass,"^{145.} while a week later in hilly country he recorded: "Soils sandy and barren in the vallies, on the Hills gravelly soil with many large Stone."^{146.}

In 1767-68 William Tomison traversed the country between Fort Severn and Lake Winnipeg. Although his journal was lost in a canoe accident on Lake Winnipeg, summary remarks of the trip were entered in the Severn Post Journal.

144. Ibid., fol. 10.

145. Cocking in Burpee, op. cit., p. 107.

146. Idem., in H.B.C., op. cit., fol. 17.

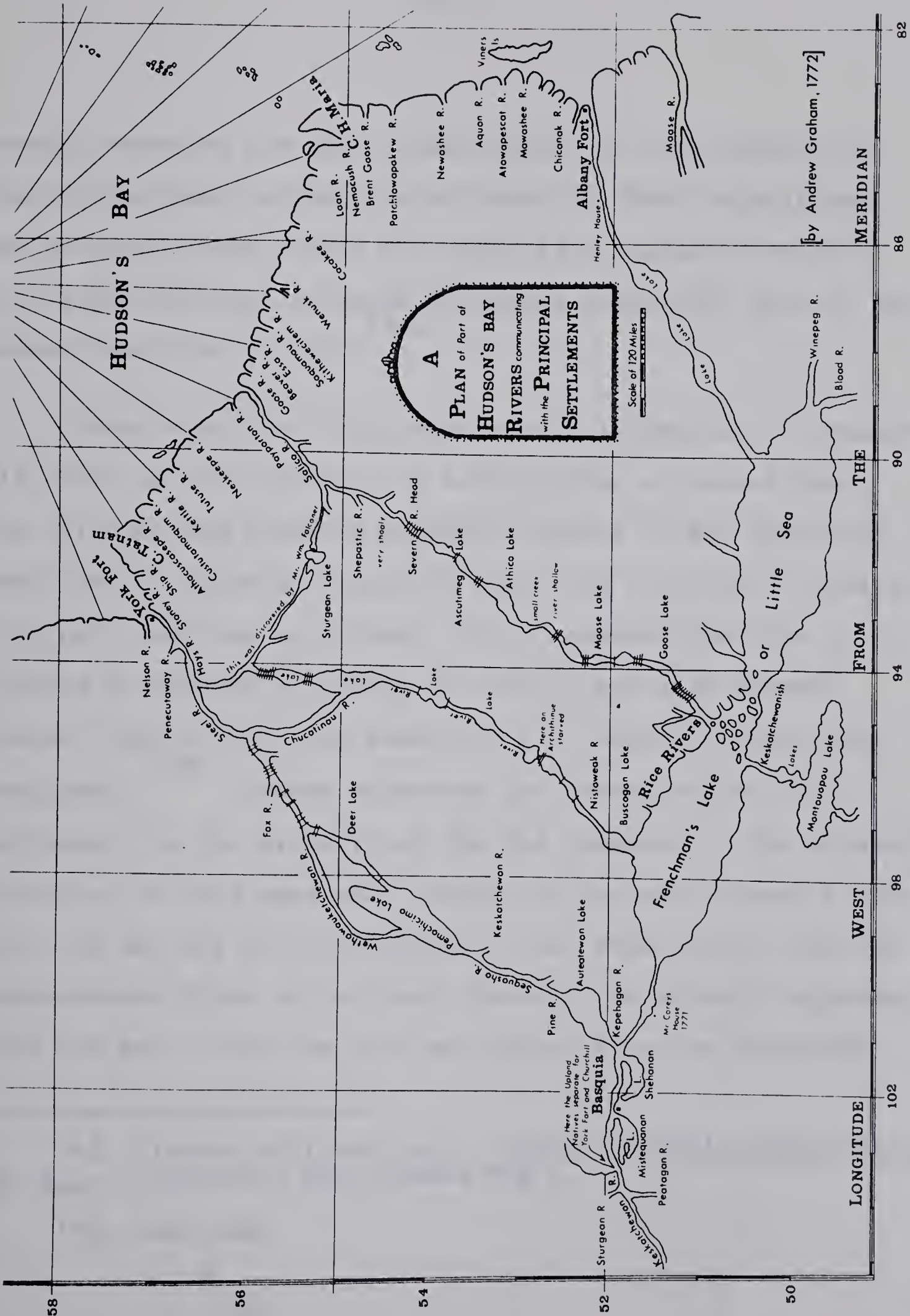
Tomison depicted the Lake Winnipeg area as prolific in its produce, and was the first Company servant to travel through the wild rice country to the east and effectively comment upon the significance of this inland food supply.

"this great Lake [Winnipeg] begins near the head of Albany river ... full of Islands on which grows birch and divers of pine trees; along side the lake grow ash and hazel with plenty of berries of divers kind; the lake and also others abounds with fish particularly pike and sturgeon ... this wild rice aforementioned grows in small Lakes and rivers, from 2 to 4 feet water ... is Collected and eat by the Natives and sold to the pedlars who buys up all they get for their winter Stock, and is the Chief Support when paddling in the Lakes; it thickens like rice, eats like boiled barley and is good food." 147.

In the interval between the parliamentary enquiry and the building of Cumberland House, the Company's knowledge of the southwestern interior was expanded considerably by the first hand accounts of its wintering servants. Despite almost twenty years of inland travelling and reporting, however, the the areas through which these men had passed came to be but

147. H.B.C., Observations of a Journey inland to the great lake performed by William Tomison Steward att Severn House Mr. Andrew Graham Master from June 16th 1767 to June 30th 1768, Severn Post Journal, B 198/a/10, fols. 3-4.

Figure 10



Source: Modified from Glyndwr Williams (ed.), Andrew Graham's Observations on Hudson's Bay 1767-91, London, 1969, Map 2.

crudely known on the Bay. Some measure of the accuracy of the geographical information afforded by these expeditions can be gained from Figure 10, which is a redrafted version of a manuscript map prepared by Andrew Graham and sent to the London Committee in 1772.^{148.}

Graham submitted this cartographic information to support his views on the necessity of establishing an inland post. The original map extended slightly farther to the north and east than is shown on Figure 10 and, from the legend in which Cocking's name was mentioned, "it is apparent that the first reports of Cocking's journey of 1772-73 may have already reached York in the late summer of 1772 before the map was completed."^{149.} Graham advocated the establishment of a settlement in the vicinity of The Pas (Basquia). The strategic situation of this area with respect to the main rivers flowing into the Bay and the bifurcation of the trade route from the Saskatchewan River to York and Churchill is strongly apparent from the map. When the plan was approved by the Committee

148. Glyndwr Williams (ed.), Andrew Graham's Observations, op. cit., unnumbered page facing Map 2.

149. Loc. cit.

in 1773, a similar map was sent to Samuel Hearne, who was selected to command the inland building expedition. Hearne was informed that the decision to "extend our trade inland is formed upon the best information we have been able to collect of the nature of that carried on between the Canadian pedlars and the Indians ... at or near to a place called Basquia."^{150.}

Despite the strategic grasp of the inland trade routes manifest in the map, it contains a number of major errors and distortions, of which the most obvious are the orientation of Lake Winnipeg and the greatly exaggerated river connections between Lake Winnipeg and the coastal factories of Severn and Albany. What the map most clearly shows is how limited the Company's knowledge of the interior was in the aftermath of over forty inland expeditions that repeatedly traversed most of the inland area depicted on the map. As Williams has remarked, "The map bears all the marks of compilation from Indian descriptions and the vague reports of Company servants sent inland from York and Severn for some years previous."^{151.}

150. H.B.C., Governor and Committee to Samuel Hearne, Hudson's Bay House, London, 12 May 1773, A 6/11, fol. 175.

151. Glyndwr Williams, op. cit., unnumbered page facing Map 2.

The quality of this knowledge reflects in large degree the characteristics of the men sent inland. The majority were only semi-literate and all were unschooled in scientific matters. For the most part, it was their proficiency at inland voyaging, or simply a willingness to undertake such hazardous journeys, that qualified them for the task. Equally important was the fact that the objectives of the inland expeditions were narrowly commercial in nature. The observations on the inland country were incidental to a trade which throughout virtually the entire period of inland wintering was perceived of as a trade based upon European settlements on the Bay. There was, therefore, little incentive to enquire about the general nature of the interior except insofar as it was pertinent to increasing the flow of furs to the Bay.

In the final analysis, however, the Company's limited knowledge of the interior on the eve of inland settlement was owing to the disinterested and conservative attitudes of the Company directors in London. Although the inland wintering programme was begun in the wake of a public controversy that centered upon the natural resources of the Company's lands, and especially upon the lands of the southwestern interior explored by the winterers, there is little evidence that the

Company was interested in gathering information bearing upon this debate. No evidence of an interest in the physical character of the interior is apparent in any of the communications from the Committee during this period. Not until it became clear that the Pedlars were usurping the trade of Rupert's Land, however, did the Committee feel any need to concern themselves with the geography of the inland country. It was only after the Committee had been confronted with the necessity of establishing a settlement inland that this situation changed. This is evident in the Committee's instructions to Samuel Hearne, who, in the course of establishing the inland settlement, was asked to obtain information on the locations of rivers, lakes and routeways and to "Endeavour^{152.} to ascertain ... the nature and produce of the country." Thus, throughout the period of inland wintering, there was neither the direction nor the encouragement from London to ensure a substantial expansion of Company knowledge of the interior.

Well before the Committee came to realize that the old trading system could no longer be relied upon to perpetuate

152. H.B.C., Governor and Committee to Samuel Hearne, Hudson's Bay House, London, 12 May 1773, A 6/11, fol. 177.

the trade, however, the vision of some of the factors began to shift from the horizons of their forts to the trading hinterlands beyond. As early as 1743, Isham had proposed that men be sent inland to draw the Indians to the Bay and to ascertain the advantages that might be gained from establishing an inland post. In the same year the master at Albany went one step further and, on his own initiative, established the outpost of Henley House in an attempt to improve the trade at Albany. Although Isham's suggestions went unheeded at this time, the Committee accepted the founding of Henley House as a fait accompli. The functions of Henley House, however, were subsequently closely circumscribed by the Committee, while the difficulties encountered in maintaining the post afforded strong arguments against further inland expansion.

At Henley House, neither agriculture nor the local faunal resource proved sufficient for the subsistence of the men. Navigation was difficult up the Albany River and, as the settlement was largely dependent upon European provisions and country produce from the other factories, the post was costly to maintain despite its proximity to the Bay. The

Company's servants, moreover, frequently refused to serve at the post, which was twice overrun by Indians, while its value in increasing the trade was much debated. There was, in Andrew Graham's words, "little trade carried on, the principal reason of its foundation being to check the encroachments of the Canadian traders."^{153.}

Thus, what was begun as a daring departure from the traditional trading practice, came to be considered as ample testimony to the folly of building inland. Not until the first inland settlement had been established from York was there renewed activity of any significance in the Albany basin. Until this time, the Albany River remained a cul-de-sac from the standpoint of acquiring additional geographical knowledge of the interior.

James Isham, who initiated the inland wintering programme at York, was the first to perceive of the southwestern interior as an area of potential Company settlement. It is no accident, therefore, that to him belongs the credit for the first attempt to acquire systematic information on the

^{153.} Andrew Graham in Glyndwr Williams (ed.), op. cit. p. 253.

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physical geography of the vast hinterland to the southwest of York. Isham's efforts, however, were frustrated by the talents of the men capable of undertaking the journeys required and were eventually abandoned because of the Committee's opposition to inland settlement. The wintering programme that Isham began, however, operated successfully until the late 1760's. Ironically, "These successes helped to banish from the minds of the factors the rival idea, which Isham had already considered, of establishing inland posts of their own."¹⁵⁴ Thus, despite the large number of inland expeditions, little in the way of meaningful information on the interior was acquired throughout most of the period of inland wintering.

The bulk of what was learned about the interior during the period of inland wintering was acquired by Henday at the beginning of the period and by Tomison and Cocking at its end. At the beginning of the period, the advances of the French prompted Isham to consider the feasibility of settling inland. Toward its end, the inroads of the Pedlars forced

¹⁵⁴. Richard Glover in Introduction to E.E. Rich (ed.), Cumberland House Journals and Inland Journals 1775-82, First Series, 1775-79, London, 1951, p. xviii.

upon his successors the necessity of contemplating such an undertaking. Only at these two junctures did the factors seriously attempt to acquire any general knowledge of the lands beyond the Bay. In both instances, moreover, the men pressed into service were relatively better qualified to report on the country than those who wandered with the Indians in the intervening years, whom Graham described as "poor ignorant fellow [s] of no abilities."^{155.}

Despite the various constraints that imposed themselves upon the quality of the information assembled during the period of inland wintering, a general picture of potentially more fruitful lands in the far interior had emerged by the end of the inland wintering period. It was generally known that most of the forest country to the south and west of the Bay offered little in the way of provisions. Game was scarce and there was little apparent inducement to settlement in this region. It was further realized, as Graham wrote in 1771, "that from the Nelson River to Moose River, and from the sea inland to the Great Lake [Winnipeg], the country is thinly inhabited and what natives there are trades yearly at

155. Andrew Graham in Glyndwr Williams (ed.), op. cit., p. 262.

the Company's settlements and nowhere else."^{156.} Any settlement established in the interior from York, in consequence, would have to be located a considerable distance inland in order to tap additional fur supplies. However, there was also no doubt by this time that climate improved inland and that, in the southernmost reaches of the forest zone penetrated by the winterers, the conditions for settlement were less harsh. Although grain had failed at Henley House, Tomison had reported wild rice as good as barley growing in the forest country to the east of Lake Winnipeg, while some of the winterers probably observed evidence of agriculture at the French posts on the Saskatchewan.

Outside of this region, the Company had gained a number of broad impressions of the parkland and bordering areas of prairie. This was a distinctly different country and, relative to the other areas of Rupert's Land known to the Company at this time, was believed to be one of short winters and little snow. It was also seen as a grass country, a plains country, and one in which the summers were thought to be relatively hot and dry. Although there were few trees, and some areas

156. Ibid., p. 269.

where sweet water was lacking, there was also an abundance of fruit, nuts and berries. The grasses, moreover, supported the Indian horses, as well as vast herds of buffalo that grazed like English cattle. There were also large numbers of moose and elk and the natives, some of whom seemed more like Englishmen than Indians, lived what appeared to be a life of ease in a plentiful country.

In places the soil of this region was coarse and sandy. In another instance, however, it had been described as a fine black mould. There was also tangible evidence that the land was arable for, on the borders of the Earchithinue country, it had been observed that some of the Indians cultivated their own tobacco. By this time, moreover, a much clearer notion of the horticultural Indians of the remote interior had emerged. It was learned that beyond the lands of the Assiniboines and the Archithinue:

"There are others far more to the Southward, who live in little houses made of logs, and as their habitations are fixed, they cultivate the wild rice [sic.] and corn in little spots of Ground, but unhappily for them, they frequently fall a prey to the wanton and provoked Slaughter not only of the Keiskatchewan [Plains Cree] and Assineé poets but also from a Neighbouring Tribe who Native barbarity is equally destructive to the Archithenues." 157.

157. Idem. in E.E. Rich (ed.), James Isham's Observations, op. cit., Appendix B, p. 314.

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As far as written records allow, these were the Company's impressions of the southwestern interior on the eve of the establishment of Cumberland House. Although the southernmost areas of the forest seen by the winterers, and especially the prairie-parkland, appeared more bountiful than was in fact the case, the greater part of the evidence pointed to an agricultural potential in these areas that was superior to any known to the Company. When the Company expanded into the southwestern interior, its first settlement was located in forest country some one hundred miles northeast of the prairie-parkland. Its location on Cumberland Lake, or at the "forks" mentioned thirty years previously by Isham, was thought to be the most advantageous position for trade. With the exception of the fishery at the site, provisions requirements had little influence upon the choice of location.

In this location, the new settlement could not tap the faunal resources of the parkland and was far distant from the rice fields to the east of Lake Winnipeg. English or Bayside provisions, moreover, could not be sent so far inland at reasonable expense, nor did the Company at this time possess the transport facilities to perform this task. Almost in desperation, the building party, which was

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comprised of the Company's most experienced inland travellers, was sent inland in small groups living off the land with the Upland Indians. No English provisions were provided for the journey, while it was only with great difficulty that the men succeeded in transporting a limited trading outfit to Cumberland Lake. During the first few years the men at the settlement relied for their subsistence upon the fishery and woodland game purchased from the Indians. Starvation was a constant threat, not only at the settlement, but also along the arduous transport route to the Bay. Despite these hardships, the settlement took root, and five years later the outpost of Hudson House was established on the North Saskatchewan River some two hundred miles west of Cumberland House.

The solution to the provisions problem in the south western interior lay in the faunal resource of the prairie-parkland, and especially in buffalo meat and pemmican. This was foreseen by Cocking when Hearne was in the process of selecting a suitable location for the new settlement. Writing to Hearne from somewhere along the Red Deer River of Manitoba, Cocking suggested that "Even at Basquia [The Pas] Provisions is likely to be scarce at times; and that the best places for Provision are here or else a great

distance above you near the Barren Ground where Buffalo
Flesh may be easily brought." ^{158.} Thus, the barren ground
came to be seen as a resource region for provisioning the
inland trade. Its exploitation in this respect was begun
in 1780, when the canoes from the newly established Hudson
House arrived at Cumberland Lake with the fur returns of
the post and 900 pounds of pemmican. ^{159.} Thus, just as the
Company began to penetrate to areas where it had good reason
to believe that superior conditions for agriculture pre-
vailed, it also encountered the outer limit of the buffalo
range. There was, in consequence, little incentive to
engage in agriculture with the objective of provisioning
the newly established inland trade.

Among the limited goods transported by the building
party to Cumberland Lake, however, were some unidentified
garden seeds ^{160.} and, following 1777, gardens are regularly
noted in the Cumberland House post journal. There is no

158. H.B.C., Matthew Cocking to Samuel Hearne, Red
Deer River 16th August 1774, York Post Journal, B 239/a/72,
fol. 9.

159. William Tomison in E.E. Rich (ed.), Cumberland
House Journals and Inland Journals 1775-82, op. cit.,
Second Series, 1779-82, p. 47.

160. H.B.C., Matthew Cocking to Samuel Hearne,
op. cit., fol. 10.

indication of what was planted in the earliest gardens, although there can be little doubt that they were insignificant in terms of the provisions requirements of the post. However, just as the Company's men engaged in agricultural experiments when they first landed on the shores of Hudson Bay a century earlier, so these experiments were begun anew when the Company settled the interior. Within a few decades of the founding of Cumberland House, the Company established settlements throughout the full range of environmental conditions contained within its chartered lands and, where these settlements were maintained on a year round basis, agriculture became a feature of each.

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CHAPTER VI

THE YEARS OF ADJUSTMENT - BAYSIDE
AGRICULTURE 1713-74

One cannot "... grow corn in any part of the country on the coast of Hudson's Bay. Even Albany and Moose rivers, which lie nearly in the parallel of London, cannot produce it. The wheat and barley grow up, but the ears do not fill with grain: the season is too transitory to admit its coming to perfection."

1.

Andrew Graham

Having considered the public controversy that raged over possible agricultural settlement in interior Rupert's Land, as well as the knowledge of these lands acquired by the Company prior to 1774, attention can now be focussed upon the agriculture that had been developed by the Company prior to its advance inland. From the time of the Treaty of Utrecht until the founding of Cumberland House, agriculture, in one form or another, characterized all of the Company's settlements. Except for a half-hearted attempt at Moose in the late 1730's, the Company no longer contemplated any large scale, let alone a commercial, agriculture such as had been

1. Andrew Graham in Glyndwr Williams (ed.), Andrew Graham's Observations on Hudson's Bay 1767-91, London, 1969, p. 330.

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attempted at Albany at the turn of the seventeenth century. Rather, during this period, agriculture became more closely adapted to the realities of environment and economy at the settlements on Hudson Bay.

Edward Umfreville, the estranged Company servant who in 1790 published The Present State of Hudson's Bay, included in his account a brief description of agriculture at the Company's settlements on the Bay.² Umfreville entered the Company's service in 1771 and served on the Bay until 1782. In his summary of Bayside agriculture, which dates from about this time, Umfreville divided the Company's settlements into two groups: the northern settlements of York and Churchill, and the southern settlements of Albany and Moose. This division, based primarily upon differences in climate and vegetation, is a fitting regionalization of the Company's main settlements and has been adopted here. In keeping with Umfreville's distinction, Fort Severn, the small outpost of York, will be discussed with the northern settlements, while the outposts at the Bottom of the Bay, Eastmain and Henley, will be considered with the southern settlements. Richmond

². Edward Umfreville in W.S. Wallace (ed.), The Present State of Hudson's Bay, Toronto, 1943, pp. 12-15.

Fort, which was in operation only during the decade 1749-59, was geographically anomalous in that it was the only post constructed on the East Main beyond the Bottom of the Bay (Fig. 5). As physical conditions there were akin to those at York and Churchill, Richmond Fort will be briefly examined with the northern settlements.

A. THE NORTHERN SETTLEMENTS

Although Umfreville recognized physical differences between York and Churchill, he considered them of small magnitude when compared with the environmental differences between north and south. The natural vegetation around the northern settlements, unlike that in the south, was of limited value and much stunted in growth. The soils at the northern settlements were inferior to those in the south, while the climate was considerably more severe. Winter was longer and harder and the only redeeming feature of the northern climate was summer. Although brief, it was relatively warm, making possible the limited garden culture that had come to characterize the northern posts.

The trees in the vicinity of Churchill were smaller than those at York, while the coast itself was devoid of woodland. James Knight, who founded Churchill in 1717, wrote that "the

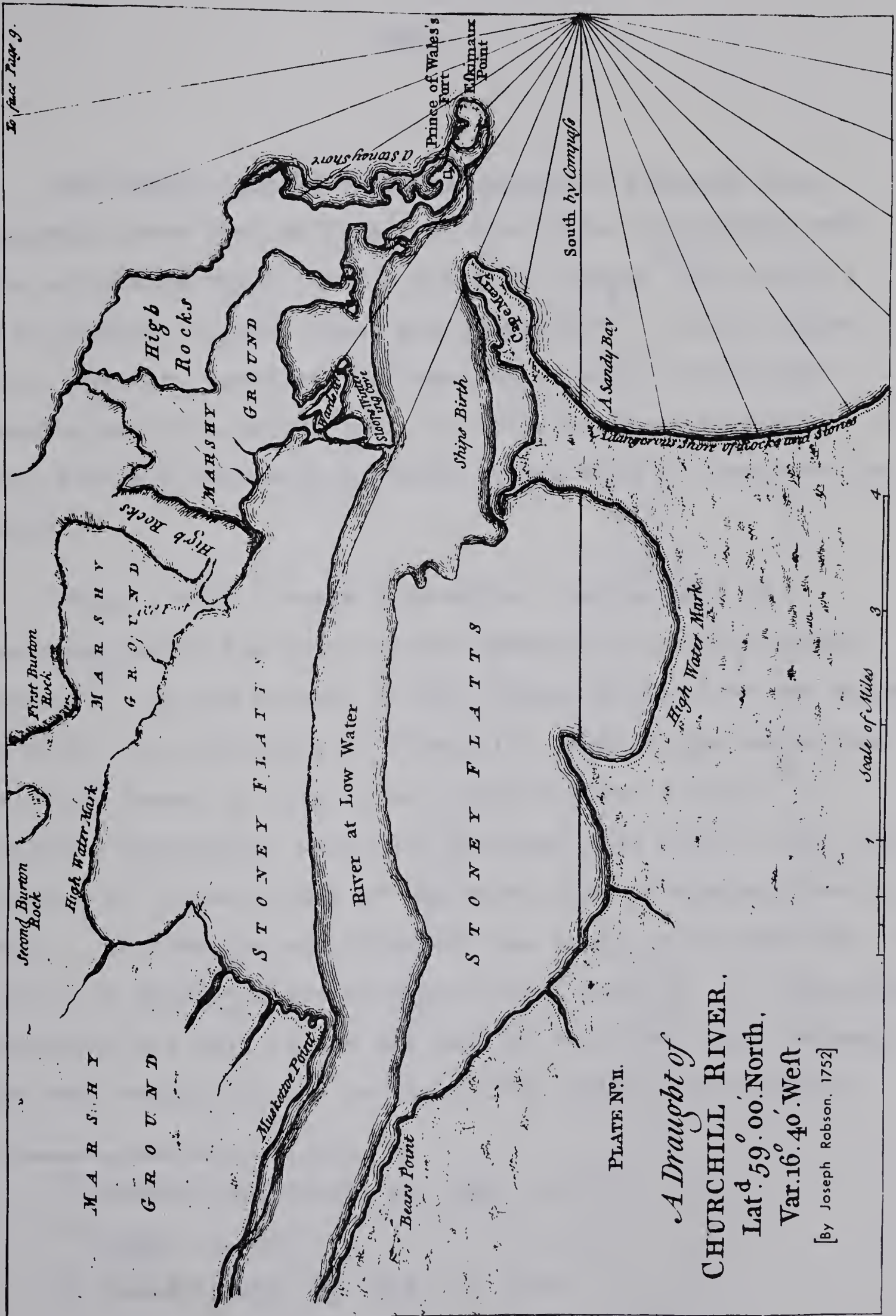
timber that grows Scragling here none less than $3/4$ of a Mile to back of ye water & it is very Short knotty stuff." ^{3.} Umfreville, more than half a century later, noted that there were no trees within seven miles of the coast, and commented that this barren aspect of the site greatly exposed the factory to the elements. The change in the distribution of woody vegetation resulted primarily from half a century of gathering firewood. This is evident from a remark by Captain William Coats that at Churchill "our people are plagued in getting down their rafts of timber for fire wood and other uses, which they float down many miles, for all above is cleared and cut down many years ago." ^{4.} Umfreville also observed that the trees inland were so small that sufficient fuel could be procured only with great difficulty. Then as now, Churchill stood close to the boundary between barren and forest. Knight, for example, noted that Churchill was the southernmost point to which the Eskimo came for wood. ^{5.}

3. James Knight, "Journal Kept at Churchill River 14 July to 13 September, 1717," in James F. Kennedy (ed.), The Founding of Churchill, Toronto, 1932, p. 120.

4. William Coats in John Barrow (ed.), The Geography of Hudson's Bay: Being the Remarks of Captain W. Coats in many Voyages to that Locality between the years 1727 and 1751, London, 1852, p. 36.

5. James Knight, op. cit., p. 134.

Figure 11



To face Page 9.

Source: Joseph Robson, *An Account of Six Years Residence in Hudson's-Bay*, London, 1752, facing p. 9.



The rocky, denuded coast at Churchill differed considerably from that at York. At the latter the country was low and marshy which, from a distance, seemed "to present a fine prospect of tall pines and junipers."^{6.} Closer inspection, however, revealed the trees to be small, knotty and unsuitable for construction. On occasion, in consequence, both York and Churchill imported timber from the posts to the south.

"Very little," wrote Umfreville, "can be said in commendation of the soils at the Company's northerly settlements."^{7.} In his account of the terrain on which he was about to build the settlement at Churchill, James Knight wrote that "all the Ground is nothing but rocks & Stone & Mudd."^{8.} Knight's settlement, which was occupied from 1717 to 1730, was located on the west bank of the river some five miles from its mouth. In 1740 the establishment was moved to the new Fort Prince of Wales located on Eskimo Point (Fig. 11). Umfreville described the soil at the new site as rocky and dry. Perhaps the best account of the soils in this vicinity was written

6. Edward Umfreville, op. cit., p. 14.

7. Ibid., p. 13.

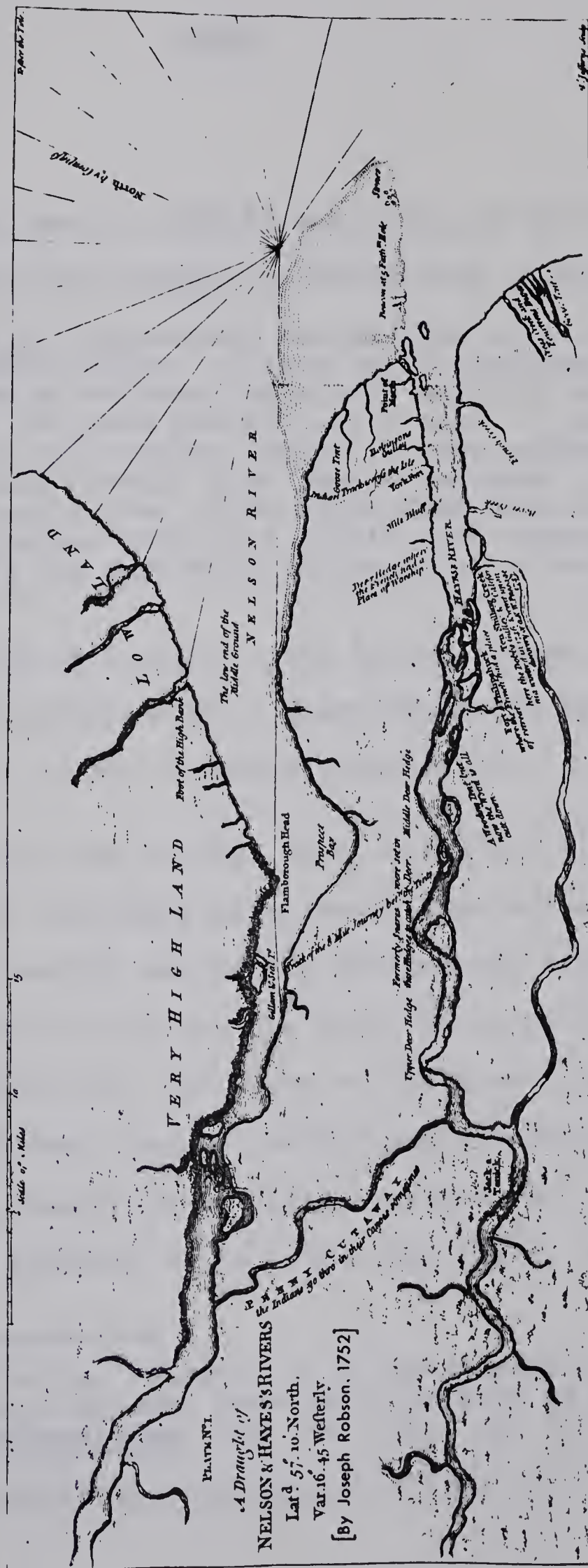
8. James Knight, op. cit., p. 124.

The first thing I noticed when I stepped out of the car was the cold. It was a sharp contrast to the warm blanket I had been sitting under. I looked up at the sky, which was a deep, dark blue, and felt a sense of peace. The air was crisp and clean, and I could hear the distant sounds of the city. I took a deep breath and felt a sense of renewal. It was a good feeling, and I knew that I was exactly where I needed to be.

I walked down the street, feeling the cold air on my face. The street was quiet, and I could hear the sound of my footsteps. I looked at my watch and saw that it was late. I knew that I had to get home soon, but I didn't want to. I wanted to stay here, in this quiet street, and feel the cold air on my face. I took a deep breath and felt a sense of peace. It was a good feeling, and I knew that I was exactly where I needed to be.

I walked down the street, feeling the cold air on my face. The street was quiet, and I could hear the sound of my footsteps. I looked at my watch and saw that it was late. I knew that I had to get home soon, but I didn't want to. I wanted to stay here, in this quiet street, and feel the cold air on my face. I took a deep breath and felt a sense of peace. It was a good feeling, and I knew that I was exactly where I needed to be.

Figure 12



Source: Joseph Robson, An Account of Six Years Residence in Hudson's-Bay,
London, 1752, facing title page.



by William Wales, who in 1768-69 was sent out by the Royal Society to observe the passage of Venus from Churchill.

"the surgeon of the factory was so kind as to walk with us several miles, to shew us the country. The soil, as far as we went, consisted entirely of high bare rocks, or loose gravel, ... I went ... about ten miles up the country, which ... was nothing but banks of loose gravel, bare rock or marshes ... Our errand was to see if we could find some land likely to produce corn; and in all that extent we did not find one acre which in my opinion was likely to do it." ⁹.

Wales' description is largely borne out by Joseph Robson's "A Draught of Churchill River," which shows the distribution of rock and marsh in the Churchill estuary (Fig. 11).

The low lying land at York Fort, which was situated on the north bank of the Hayes River about five miles upstream from the river's mouth, was poorly drained and alluvial in origin. Umfreville described the soils there as "of so loose and clayey a nature that the banks of the river are continually falling down through inundations and deluges." ¹⁰. In somewhat more detail Henry Ellis remarked that the surface of the soil was composed of "a loose dark Mould, under which

⁹. William Wales, "Journal of a Voyage made by order of the Royal Society," Excerpt from Royal Society of London Philosophical Transactions, Vol. LX, 1769, pp. 116-17.

¹⁰. Edward Umfreville, op. cit., p. 13.

are Layers of different coloured Clays, pale, yellow, &c." ^{11.}
Umfreville expressed the view that the soils at York were
"very unfit for agriculture even if the climate would admit
it." ^{12.} Robson was of the opinion that the soils at York
were better than those at Churchill, ^{13.} a statement which
was no doubt correct in terms of soil fertility.

Thus, at the northern settlements, climate and soils,
and their impact as manifest in the natural vegetation,
created a setting which observers, including, paradoxically,
some of those with partisan views about Company settlement,
generally described as offering a most meagre potential for
agriculture. That agriculture was not entirely absent from
the northern settlements was due, as noted earlier, to the
character of the brief high latitude summer. Its effect in
this respect was well summarized by Edward Umfreville:

"Notwithstanding all this, when the genial rays of
the sun begin to extend to these parts of the globe,
vegetation is exceedingly quick. The trees shoot
up with surprising celerity and the Churchill factory
people are soon able to gather the produce of a little

11. Henry Ellis, op. cit., p. 168.

12. Edward Umfreville, op. cit., p. 13.

13. Joseph Robson, An Account of Six Years Residence in
Hudson's-Bay, From 1733 to 1736, and 1744 to 1747, London,
1752, p. 43.

garden stuff, put into the ground about the middle of June. At York Fort a tolerable quantity of cresses, radishes, lettuce, and cabbages may ... be procured with proper cultivation; and in favourable seasons, even peas and beans."¹⁴.

1. Gardening

Gardening at Churchill was commenced six years after Knight founded the settlement in 1717. The austere nature of the country at the tundra margin would have offered little incentive for Britons to begin gardening at this the most northerly European settlement in America. Not until the Committee in London took the initiative in 1722 were¹⁵ preparations made for cultivation at the new post. Following 1723 gardens appear to have been planted annually at the settlement. From the post journal it is evident that the vegetables harvested with the greatest regularity were coleworts and turnips. Some of the coleworts as well as turnip tops were taken up for kitchen use in the course of

14. Edward Umfreville, op. cit., pp. 13-14.

15. H.B.C., Churchill Post Journal, B 42/a/3, August 17, 1722.

the summer, but the bulk of the crop was generally left until autumn and preserved for winter use. The turnips had to be protected from the frost, but the coleworts were stored in a frozen state. A number of other vegetables were probably planted each year, but are referred to only occasionally in the post journal. Possibly this was because they were harvested in such small amounts and at different times in the course of the summer that they did not warrant comment in the journals. These would include radishes and various greens such as mustard, cress and lettuce. William Wales, for example, mentioned eating "very fine radishes" at Churchill in early July, and remarked that the tops of the turnips at that time were large enough "to boil for greens for our beef and salt geese." The only other vegetable mentioned by Wales was lettuce, which was usable by the middle of July.^{16.}

A considerable variety of vegetables other than those mentioned were planted from time to time at Churchill but rarely came to maturity. Those mentioned in the post journal of the period include peas, beans, onions, carrots,

16. William Wales, op. cit., p. 126.

cabbages and parsnips. Potatoes were not introduced into Churchill until 1768 or 1769. They were first planted at Churchill by Andrew Graham, who "brought them to a bigness^{17.} of a hen's egg."

Toward the end of this period a series of experiments was conducted at Churchill with cereal grains and a trial was made with hemp. In the autumn of 1768 small quantities of wheat, barley, peas and beans were sown to see if they stand the winter.^{18.} The following spring barley and hemp were planted on different pieces of ground, and a further trial was made with wheat.^{19.} Oats were also sown, and although their appearance was such that William Wales felt that they "might be brought to some tolerable degree of perfection,"^{20.} Samuel Hearne, who saw the experiment through, wrote that "the success of the experiment may be easily

17. Andrew Graham in Glyndwr Williams (ed.), op. cit., p. 135.

18. H.B.C., Churchill Post Journal, B 42/a/74, September 22, 1768.

19. Ibid., May 19, 1769.

20. William Wales, op. cit., p. 129.

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guessed; which was, that it did not produce a single grain."^{21.}
The cereals and hemp failed and further attempts with these crops were discontinued at Churchill. Although the peas and beans did not come to account, they were subsequently planted at the post.

Gardening at York was begun shortly after its founding in 1682. It was continued by the French during the Wars of the Austrian and Spanish Succession,^{22.} and by the English^{23.} during their brief period of tenure at York in 1696-97. Immediately upon the English re-occupation of York in 1714 the men at the fort were ordered to stake in some ground for a

21. Samuel Hearne in Richard Glover (ed.), A Journey from Prince of Wales's Fort in Hudson's Bay to the Northern Ocean 1769.1770.1771.1772., Toronto, 1958, p. 134n.

22. Nicholas Jérémie, who in the period 1694-1714 was resident at York Factory, or Fort Bourbon as it was renamed by the French, wrote that "Although the summer is very short, we had a small garden which never failed to produce very good lettuce, green cabbage, and other small herbs which we used for making soup in winter." See Nicholas Jérémie in Twenty Years of York Factory 1694-1714, Jérémie's Account of Hudson Strait and Bay, edited and translated by R. Douglas and J.N. Wallace, Ottawa, 1926, p. 38.

23. Henry Kelsey remarked upon clearing away snow from the garden at York in the spring of 1697. See Henry Kelsey in A.G. Doughty and Chester Martin (eds.), The Kelsey Journals, Ottawa, 1929, p. 76.

The first part of the report deals with the general situation of the country and the progress of the work. It is followed by a detailed account of the various projects and the results obtained. The report concludes with a summary of the work done and the prospects for the future.

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The third part of the report deals with the various projects and the results obtained. It is followed by a detailed account of the various projects and the results obtained. The report concludes with a summary of the work done and the prospects for the future.

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garden, and the next fall a harvest of turnips was
gathered at the post.^{25.}

As at Churchill, the most dependable and most important vegetable crops at York were turnips and coleworts. Radishes, lettuce and other greens were important in the earlier parts of summer. Vegetables planted more frequently than at Churchill, and generally with more success, were peas, beans, cabbages and carrots. A list of vegetables planted at different times at York would include parsnips, celery, spinach, parsley, horse radishes, onions, cucumbers and purslane. Although conditions varied considerably from year to year, a variety of vegetables were sometimes taken up for winter use. In 1751, for example, carrots, onions and parsnips were put away for the winter.^{26.} The following year, which was more exceptional at York than the preceeding one, carrots, onions, lettuce, parsley, turnips, cabbages and coleworts were retained for winter use.^{27.} The potato, which was later to prove so useful at some of the Bayside establishments, was not tried at York during this period. The first mention of

24. H.B.C., York Post Journal, B 239/a/1, September 29, 1714.

25. Ibid., B 239/a/2, September 16, 1715.

26. Ibid., B 239/a/35, September 16, 1751.

27. Ibid., B 239/a/36, October 12, 1752.

this tuber at York was in 1778, at which time "20 pounds" of
28.
potatoes were harvested at the post.

Although cereal grains were attempted at York, none was brought to maturity despite claims to the contrary by some of the Company's critics. However, at Fort Severn, located on the estuary of the Severn River some 200 miles to the southeast of York, barley was once raised almost to maturity in an exceptional season. Andrew Graham wrote that "In the year 1768, on 4 June, I sowed barley in the warmest spot in my garden [i.e. at Severn], and the summer and fall proving favourable beyond common years, it grew to a full length, eared, and filled so far as would make seed, by the opinions
29.
of the servants who understands husbandry." The main crops at the small outpost on the Severn, where gardening was begun
30.
immediately following the construction of the post in 1759, were turnips and coleworts. Gardens were also planted at
31.
Fort Richmond during the first summer of operations, and

28. Humphrey Marten quoted by Richard Glover in Introduction to E.E. Rich (ed.), Cumberland House Journals and Inland Journals 1775-82, Second Series, 1779-82, London, 1952, p. xxxi in.

29. Andrew Graham, op. cit., p. 135.

30. H.B.C., Severn Post Journal, B 189/a/1, May 22, 1760.

31. Ibid., Richmond Post Journal, B 182/a/1, May 8, 1751.

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are mentioned in each subsequent year in the post journal. However, the journals afford no information on what was planted. The continued presence of gardens at the Richmond Gulf site until the post was abandoned in 1758 would indicate that some measure of success attended this most northerly attempt at gardening on the East Main of the Bay.

The most complete enumeration of the vegetables planted at the northern settlements during this period was written by Andrew Graham. A naturalist by inclination, Graham had served as an officer at York, Churchill and Severn.

"We have gardens round the factories, which by care and manuring turn out very well particularly on the south side, but it is the month of June before the ground is thawed sufficient for digging and sowing. They produce excellent lettuce, cresses, radishes, onions, spinach, coleworts, turnips, pease, beans. Parsley purslane, celery, carrots, parsnips and several other kinds of seeds are sown annually but with very little success."³²

Unlike other writers of the period, Graham singles out the vegetables that most frequently failed. However, he mentions only a few vegetables in this context, and fails to note the special practices that were employed to facilitate vegetable culture in these northern areas. Frosts, drought, poor

32. Andrew Graham, op. cit., p. 135.

The first of these is the fact that the
 government has been unable to secure
 the necessary funds to carry out its
 policy of expansion. This has been
 due to a variety of factors, including
 the fact that the government has been
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 unable to secure the necessary funds
 to carry out its policy of expansion.

quality seeds, caterpillars and sheer apathy among the Company's servants not infrequently wiped out or reduced the different garden crops at these settlements. Moreover, peas and beans, which are so frequently mentioned as garden crops at the northern settlements, were never reliable crops. Because of the short summer season, peas and beans were available in some years, but only in various stages of development. Only rarely did the pods fill, although as greens they were always of use in the mess. Even at York, Umfreville observed that peas and beans "so seldom come to any kind of perfection that they are esteemed a kind of luxury."^{33.}

The vegetables that did succeed, moreover, were generally cultured under special conditions. James Isham, for example, wrote that:

"its ... to be observed we have pease, cabbage, turnips & Sallets at York fort, but then its to be consider'd where these Seads Grows is to the Southwd. and close under the fort Shelter'd from the W. & N. Et. Winds, for if we Sow any Seeds open or clear of Shelter Such Seeds will come up, but such plants, or herbs wither's and comes to no perfection." ^{34.}

The gardens at York comprised scattered patches of land located within the stockades. The sheltered nature of

33. Edward Umfreville, op. cit., p. 14.

34. James Isham, op. cit., pp. 217-18.

these gardens is well illustrated on Philip Turner's "Ground Plan of York Fort" (Fig.13) where they are shown as number 16. The same considerations for shelter and aspect appear to have been incorporated into the cultural practices at Churchill. Although not located within the confines of the fort, the gardens were enclosed with stockades. Some of the vegetables were cultured indoors or in sheltered locations before being transplanted in the gardens. The journals at both posts frequently refer to transplanting turnips, coleworts and "greens". Attempts were also made to improve the soil at both establishments. Mention is made of clearing stones from the garden at Churchill, while at both places earth was transported to the cultivated patches. During the latter part of the period, when livestock were present at York, Churchill and Severn, dung was employed to improve the gardens. It should be observed that practices of this nature varied from time to time, and appear to have depended upon the inclinations of the men on the Bay, some of whom did not take an active interest in gardening. For example, when Andrew Graham was appointed Acting Chief at York in 1771-72, he found it necessary to issue the following directive to his men because of the neglected state of the gardens.

Figure 13

Reference

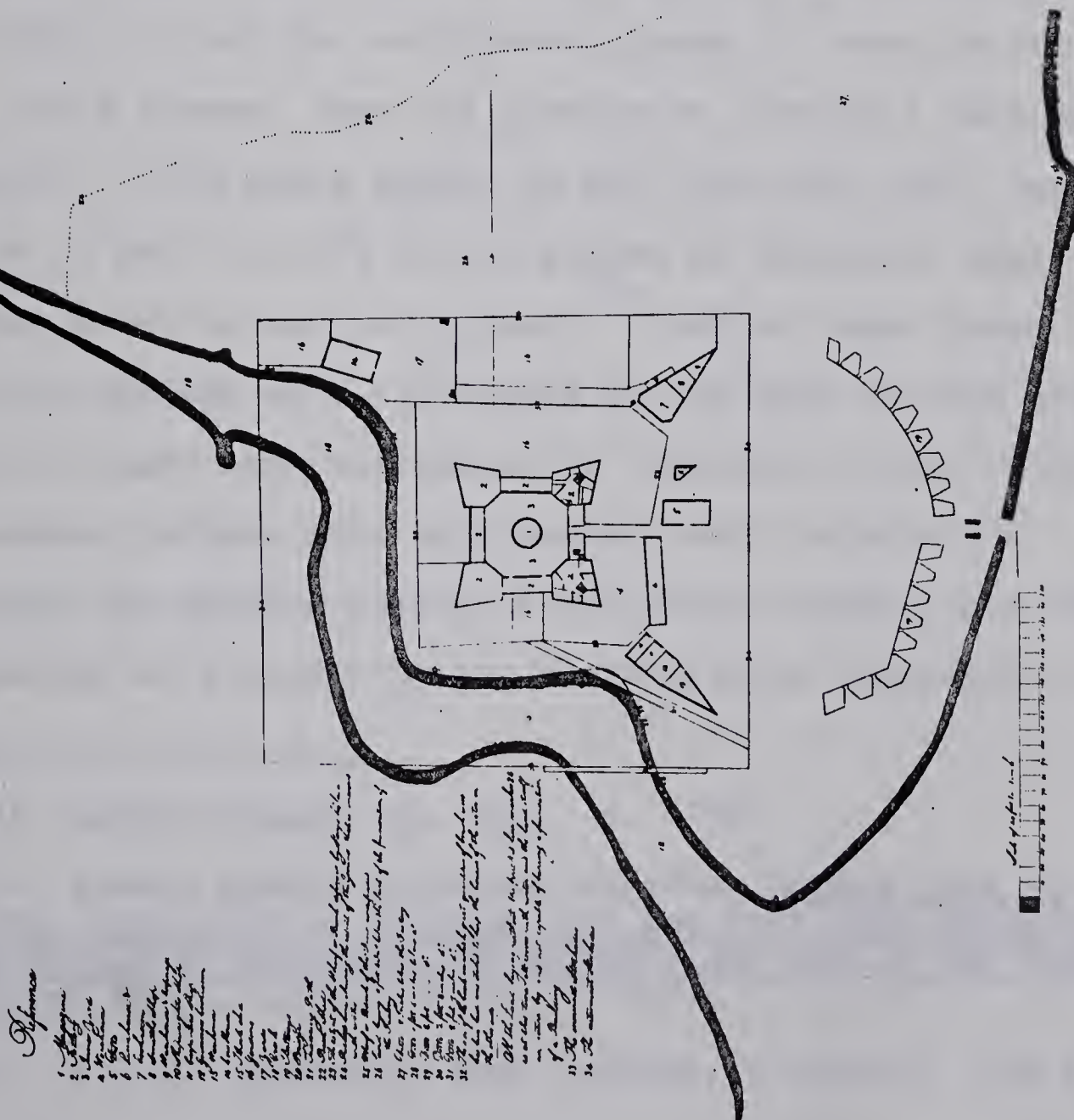
- 1 Magazine
- 2 Firing
- 3 Inner Yard
- 4 Warehouse
- 5 Ditch
- 6 Lumberhouse
- 7 Workshop
- 8 Smith's shop
- 9 Warehouse
- 10 Blacksmith's shop
- 11 Carpenter's shop
- 12 Gunpowder house
- 13 Warehouse
- 14 Lumberhouse
- 15 Blacksmith
- 16 Gardens
- 17 Yard
- 18 Fences
- 19 Barracks
- 20 Bridge
- 21 Trenching Pit
- 22 Road
- 23 The extent of the Wharf or Road adjacent to the lake
- 24 Picked line showing the extent of the ground that is covered with water
- 25 Wharf or Road of the River and land
- 26 Land lying a foot below the level of the foundation of the building
- 27 Ditch 3 inches below the surface
- 28 Ditch 1 foot 6 inches below a
- 29 Ditch 2 feet 6 inches d
- 30 Ditch 2 feet 6 inches d
- 31 Ditch 2 feet 6 inches d
- 32 The side of the land in which great quantities of lumber were
- 33 The innermost stockades
- 34 The outermost stockades

All the land lying without the picked line marked 24 is at this time covered with water and the land itself is entire by and not capable of having a foundation of a building

The innermost stockades

The outermost stockades

A General Plan of York Fort on Hayes River America the year 1770 to 1774



Source: J.B. Tyrrell (ed.), Journals of Samuel Hearne and Philip Turnor, Toronto, 1934, Map D.

Handwritten text, possibly a list or notes, mostly illegible due to blurriness.



"whereas within these few years it has become customary to empty urine, brine, water and rubbish in the men's garden, thereby preventing the use formerly made of its ground (which was that the Company's servants might cultivate vegetables, and live as comfortable as possible in the country), it is therefore ordered that henceforth this practice be discontinued." 35.

Gardening at the northern settlements was conducted on a limited scale. Joseph Robson estimated that less than two acres were cultivated at York and Churchill.^{36.} Turner's 1778 plan shows about half an acre devoted to gardens at York which, if all the cultivated ground is shown on the plan, would suggest that the gardens at Churchill were more extensive. This would appear to have been the case, for mention is made in 1769 of one garden at Churchill that enclosed about an acre of ground,^{37.} and at least three different gardens were cultivated at the post at this time. Horses and oxen were introduced to Churchill in the 1730's. They appear to have been employed as draft animals in preparing the gardens shortly after their arrival, for the manufacture of a plough by the blacksmith at Churchill is

35. Andrew Graham, op. cit., p. 135n.

36. Joseph Robson in United Kingdom, Report from the Committee Appointed to Enquire into the State and Condition of the Countries Adjoining to Hudson's Bay and of the Trade Carried on There, London, 1749, p. 217.

37. H.B.C., Churchill Post Journal, B 42/a/74, May 19, 1769.

The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β . It is shown that the system has solutions for all values of the parameters α and β if the function $f(x)$ is continuous and has a bounded derivative. In the case when the function $f(x)$ is not continuous or its derivative is not bounded, the system may have no solutions or a unique solution may exist. The second part of the paper is devoted to the study of the properties of the solutions of the system (1) for arbitrary values of the parameters α and β . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters α and β if the function $f(x)$ is continuous and has a bounded derivative. In the case when the function $f(x)$ is not continuous or its derivative is not bounded, the solutions of the system (1) may not exist or may not depend continuously on the parameters α and β . The third part of the paper is devoted to the study of the properties of the solutions of the system (1) for arbitrary values of the parameters α and β . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters α and β if the function $f(x)$ is continuous and has a bounded derivative. In the case when the function $f(x)$ is not continuous or its derivative is not bounded, the solutions of the system (1) may not exist or may not depend continuously on the parameters α and β .

It is shown that the solutions of the system (1) are unique and depend continuously on the parameters α and β if the function $f(x)$ is continuous and has a bounded derivative. In the case when the function $f(x)$ is not continuous or its derivative is not bounded, the solutions of the system (1) may not exist or may not depend continuously on the parameters α and β .

noted in the post journal in 1733.^{38.} Subsequent notations refer to ploughing and harrowing at the post, while Samuel Hearne mentions a new-fashioned plough invented by Governor Fowler at Churchill.^{39.} At York, on the other hand, the small gardens were spaded by the men. The larger gardens at Churchill during this period were probably stimulated by the larger complement of men at this post, by a greater dependence upon European food than at York, and by the availability of draught animals for ploughing. No information is available on the scale of gardening at Severn or Richmond forts. It is unlikely, however, that the cultivated area at these small outposts exceeded that at York or Churchill.

On the whole, the post journals afford only scanty information on garden yields. The best yield recorded at York during this period, although the enumeration is not complete, was in autumn of 1760: "took up for winter stock 31 Bushell of Turnips, and further one good cart load of savoy^{40.}s, and colewords." The tally excludes, besides a

38. Ibid., B 42/a/14, September 28, 1733.

39. Samuel Hearne, op. cit., p. 134n.

40. H.B.C., York Post Journal, B 239/a/48, October 8, 1760.

The first part of the paper deals with the general theory of the problem. It is shown that the problem is equivalent to a certain type of boundary value problem for a second order elliptic equation. The second part of the paper is devoted to the construction of the Green's function for the problem. It is shown that the Green's function can be constructed in the form of a series in terms of the eigenfunctions of the Laplace operator. The third part of the paper is devoted to the study of the asymptotic properties of the Green's function. It is shown that the Green's function has a logarithmic singularity at the point where the source is located. The fourth part of the paper is devoted to the study of the asymptotic properties of the Green's function. It is shown that the Green's function has a logarithmic singularity at the point where the source is located.

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few personal gardens tended by the men, the vegetables consumed in summer. In 1796 it was recorded that "Had the remainder of the vegetables taken up and stowed away for winter use - they are remarkable fine and I judge that with economy, there is sufft. to serve all hands until ^{41.} spring."

The earliest useful enumeration of vegetable produce in the Churchill journal was in 1789: "the produce of our garden this year, green pease 2 gallons, turnips 36 bushels, and a good quantity of Colworts, radishes and ^{42.} lettuces."

By the end of this period, cereals had proven unsuitable in the environs of the West Main, although barley had produced an encouraging result in a single season at Severn. Hemp had failed, while potatoes had been a most marginal success. In most years a variety of vegetables were planted at the northern settlements. Not all of the vegetables planted were capable of maturing in this region, while those that were failed to succeed with regularity from one season to the next. Among the various vegetables planted fairly

41. Ibid., B 239/a/100, October 10, 1796.

42. Ibid., Churchill Post Journal, B 42/a/114, September 30, 1789.

regularly, peas and beans can be singled out as the least reliable. Yet in some years peas succeeded to some extent even at Churchill, while in others turnips failed at York but produced well at Churchill. In most years roughly the same vegetables were planted at the main northern settlements. The principal difference, as might be expected, was that they matured less frequently or yielded more poorly at Churchill than at York, although they were still considered to be sufficiently useful even in the immature form to be planted at Churchill.

2. Livestock

Livestock at Churchill were introduced as draft animals to assist in the construction of the new Fort Prince of Wales, a large stone fortress which the Company built on Eskimo Point to replace the original wooden structure that Knight had established five miles from the river's mouth. The first animals sent out were a horse, a cow and a bull, which arrived safely at Churchill in the summer of 1731.^{43.} The cow and bull were the first domestic cattle

43. "Letter from Richard Norton, Churchill River, 1731," in K.G. Davies (ed.), Letters from Hudson Bay 1703-40, London, 1956, p. 162.

introduced into Rupert's Land. Although Indian horses of Spanish origin may have begun to diffuse into the southern Canadian plains by this time, the horse at Churchill was the first introduced directly by Europeans. Both animals had been purchased by the Company in the Orkney Islands.^{44.} The Company by this time had begun to recruit its servants in the Orkneys, and the Orkney Islands henceforth were to afford the Company not only the bulk of its labour supply, but also some of the domestic plants and animals introduced into the Canadian West.

The Orkney livestock sent to Churchill were probably among the most suitable breeds available in the British Isles to survive the rigorous environmental conditions by the Bay. However, they were ill-suited for the draft role that the Company intended at Churchill. Both the horses and cattle of Orkney at this time, like those of Shetland, the Hebrides or the Scottish Highlands, were a dwarf version of their Lowland or English counterparts. The domestic animals of upland Britain, including sheep and pigs, generally were primitive breeds that gradually had been driven from the

44. Loc. cit.

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cultivated lowlands to the more remote mountain and insular retreats.^{45.} Those that inhabited the Hebrides, Shetland and Orkney resembled most closely the feral varieties that had populated Scotland before the arrival of man.^{46.}

One of the outstanding features of these breeds was their small size, a characteristic which tended to become more pronounced with distance from the more intensively farmed lowlands. In his tour of the Hebrides in 1773, for example, Dr. Johnson observed that the livestock diminished in size with distance from the mainland. He noted that the horses and cows on Skye were of moderate size, and "heard of very little cows on Barra, and very little horses in Rum."^{47.} Similarly, the Reverend John Brand, writing at the turn of the seventeenth century, observed a gradation in the size of horses between Orkney and Shetland. He wrote that in Shetland "They have a sort of little Horses called Shelties ... they are of less size than the Orkney Horses."^{48.}

45. James Ritchie, The Influence of Man on Animal Life in Scotland, A Study in Faunal Evolution, Cambridge, 1920, p. 73.

46. Loc. cit.

47. Samuel Johnson in Arthur Murphy (ed.), The Works of Samuel Johnson, LL.D., Vol. VIII, "A Journey to the Western Islands of Scotland," London, 1806, p. 304.

48. Reverend John Brand quoted in James Ritchie, op. cit., p. 77.

During the eighteenth century there developed in Orkney a practice of purchasing horses from Caithness and Strathnaver on the adjacent Scottish mainland, so that by the end of the century few of the horses of Orkney were indigenous to the islands. They were described toward the end of the century as of "the small Strathnaver and Shetland breed."^{49.}

This mixing, however, appears to have had little effect upon increasing their stature. The following description of Orkney horses was written in 1795-98: "The horses ... throughout Orkney in general, are of a hardy nature and small size, the largest are seldom above 14 hands high."^{50.}

The Orkney cattle, which are now extinct, were also of diminished stature. They were much akin to the Highland Kyloes. Contemporary observers described them as a "small and very unhandsome breed"^{51.} capable of giving "milk of a good kind, and of sufficient quantity, which considering ... the small quantity and the coarse kind of food they have, is really surprising."^{52.}

49. J. Storer Clouston (ed.), The Orkney Parishes, Containing the Statistical Account of Orkney, 1795-98, Drawn Up from the Communications of the Ministers of the Different Parishes, Kirkwall, 1927, p. 8.

50. Ibid., p. 317.

51. Ibid., p. 12.

52. Ibid., p. 40.

The Orkney horse sent to Churchill died shortly after its arrival,^{53.} but the cattle fared well in the environs of Churchill and produced an offspring in February of 1732. The cattle, however, were found unfit for the heavy work at Eskimo Point, which prompted the Chief at Churchill to request additional draft animals for the post.

"We humbly recommend ... the sending over some cattle which we find would live in this country by the experience we have had of the cow and bull we bought at the Orkneys which is both in heart, likewise a calf which was brought forth ... This shows, Gentlemen, that this climate will agree with English cattle, Orkney do. [i.e. ditto] being so very small and not fit for labour, and we have made use of opportunities to drain and clear some of the ground for pasturage which produces good grass for hay ... if your honours please to supply us with three or four horses and four oxen which will make two good teams and we are fully persuaded will be of more service in drawing of stone etc. to our work." 54.

The larger, English livestock requested for Churchill were sent out the following year. Richard Norton reported that "We received from on board the Mary frigate the cattle your Honours sent over, except one of the horses that was left at the Orkneys which we hope we shall have next year,

53. "Letter from Richard Norton, [Churchill River], [1732], in K.G. Davies (ed.), op. cit., p. 175.

54. Loc. cit.

which cattle we are confident will be of great service to the building." Norton also observed that "we have made proper provisions for ... stabling ... the cattle, by building a redoubt in the SE square of the present factory, and another which we propose to build this fall on the SW square."^{55.}

Joseph Robson, who went out to the Bay on the Mary frigate on her 1733 voyage to Churchill, wrote that the ship carried a bull, four heifers, two oxen and a horse.^{56.}

In the summer the draft animals at Churchill were pastured in the vicinity of the fort. Although some attempt was made to drain and clear pasture, the animals generally foraged in the unimproved marshlands along the river (See Fig. 11). The marshes also afforded the winter's hay supply for the livestock, which until the end of the period were stabled at the old fort.^{57.} The grass in the marshes, according to Wales, was quite long, but by virtue of its situation required much labour to cut and dry.^{58.} Samuel

55. "Letter from Richard Norton, Prince [of] Wales Fort, Churchill River, America, 16 August 1733," in ibid., p. 185.

56. Joseph Robson, An Account of Six Years Residence, op. cit., p. 12.

57. Andrew Graham, op. cit., p. 243.

58. William Wales, op. cit., p. 118.

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Hearne observed that "The Marsh Grass at Churchill is of that peculiar nature, that where it is mowed one year, no crop can be procured the next Summer; whereas at York Fort, though the climate is not very different, they can get two crops, or harvests, from the same spot in one summer."^{59.}

The marshland hay alone was found insufficient to maintain the animals in proper condition for the heavy work required at Churchill. This led to a dependence upon imported grain. The importance of imported feed was well illustrated in 1736 when, because of the loss of the supply ship, the oxen at Churchill were slaughtered for want of winter feed.^{60.} Although costly to maintain in good condition, draft animals were essential to haul the large stones required for the fortifications. And because defence measures of this nature were regarded by the Committee as necessary at this time, the Company was prepared to absorb the cost.

Following completion of the new fort, fewer draft

59. Samuel Hearne, op. cit., p. 294.

60. "Letter from Richard Norton and Others, Prince of Wales Fort, Churchill River, 17 August 1736," in K.G. Davies, op. cit., p. 212.

animals were kept at Churchill. During the latter part of this period, the livestock at the post consisted of small numbers of horses, cattle, goats and pigs. In 1768-69, for example, William Wales noted that the haying at Churchill "keeps three horses, two cows, a bull and two or three goats the whole winter."^{61.} Although little information is available on their characteristics, the livestock at this time appear to have been a mixture of Orkney and English breeds. In 1752, for instance, the Committee sent over two horses described as large, strong horses. They were probably English in origin, and were sent out because the horses at Churchill were too small to be of "Service in Heavy Draughts."^{62.} Orkney horses, however, were retained at Churchill until the end of this period. In 1779, for example, a horse described as an Orkney pony was sent from Churchill to York for use by the master at the latter place.^{63.}

With the exception of Orkney horses, the only other

61. William Wales, op. cit., p. 118.

62. H.B.C., Letter from the Governor and Committee to Messrs. Joseph Isbister and Council at Prince of Wales's Fort, London, 12 May, 1752, A6/8, fol. 98.

63. Richard Glover in "Introduction" to E.E. Rich (ed.), Cumberland House Journals and Inland Journals 1775-82, Second Series, 1779-82, London, 1952, p. xxxiv.

domestic animals at Churchill at this time that can be positively identified as to breed were the pigs, which were Orkney in origin. As Professor Glover has pointed out, the Orkney pigs of the time were readily identifiable by their long, coarse bristles. This peculiar feature caught the eye of one of Admiral Lapérouse's officers, who observed in 1782 at Churchill "une espèce de porc particulière, au^{64.} poil épais, long et hérissé." According to the Reverend George Low, who was resident on the island of Pomona in the period 1774-95, the Orkney pig was "of a very small size, and variable colour, the back full of very large and long bristles, the ears erect and sharp pointed, the nose surprisingly strong ... their appearance is altogether different^{65.} from those brought from the south." He further wrote that the long bristles, which seemed so peculiar to the French officer on Hudson Bay, were employed in Orkney to make ropes. The latter were used to lower men over cliffs in order to collect seabird eggs, and were judged superior

64. Pierre-Bruno-Jean de la Monneraye, "Expedition de la Baie d'Hudson," Bulletin de la Société de Géographie, 7me. Ser. Vol. IX, Paris, 1888, p. 279, quoted by Richard Glover in E.E. Rich (ed.) op. cit., p. xlvi.

65. Reverend George Low, Fauna Orcadensis: or, the Natural History of the Quadrupeds, Birds, Reptiles, and Fishes, of Orkney and Shetland, Edinburgh, 1813, p. 10.

in this use to the best ropes of hemp.^{66.} The primitive nature of the pigs of Orkney also attracted the attention of Charles Darwin, who noted that secluded islands favoured the production or retention of peculiar breeds of this sort.^{67.}

The pigs in Orkney were allowed to forage for themselves on the islands and, in terms of both habits and physical features, displayed many characteristics of their feral ancestors. Their erect, sharp ears, small bodies and long legs resembled those of the wild boar, whose food and safety depended upon his physical prowess. Their relatively long, strong snouts were especially useful in grubbing for roots, while, like their wild ancestors, they occasionally resorted to eating eggs, young upland birds, and even new-born lambs.^{68.} This propensity for meat proved a very useful attribute at Churchill where vegetable food of any kind was always scarce. Samuel Hearne, for example, remarks upon having fed upwards of two thousand partridges to the hogs

66. Ibid., p. 11.

67. Charles Darwin, The Variation of Plants and Animals under Domestication, New York, 1899, Vol. I, p. 71.

68. James Ritchie, op. cit., p. 93.

at Churchill in the winter of 1785, a winter in which
partridges were unusually plentiful.^{69.} Hearne was of the
opinion that "There are few of the granivorous animals that
may not be brought to be carnivorous," and wrote that "our
horses in Hudson's Bay would not only eat all kinds of
animal food, but also drink freely of the wash, or pot-
liquor, intended for the hogs."^{70.}

The first livestock at York were introduced concomitant
with the English re-occupation of the post in the autumn of
1714. They were transported to York either from Albany or
from Britain, for no mention is made of livestock in the
list of goods acquired from the French at this time.
Possibly the animals were sent to York at this time because
the plans laid previously by the Committee to supply the
post with livestock had been interrupted by the French
seizure of the fort. The difficulties encountered in obtain-
ing hay at Albany, and the subsequent failure of the attempt
at herding there, may have prompted the Committee to experi-
ment at York immediately following the war, especially as

69. Samuel Hearne, op. cit., p. 266.

70. Ibid., p. 157.

they had been informed by the Governor of York that hay was plentiful near the factory.

Whatever the case, this first attempt at animal husbandry on the West Main failed almost as soon as it was begun. Flooding in the spring of 1715 caused the loss of two pigs, a goat and all of the factory hens,^{71.} while the difficulties encountered in maintaining the animals prompted Governor James Knight to slaughter his remaining livestock in the autumn of 1715. The latter, which consisted of hogs, sheep and goats, had apparently fared so poorly in the environs of York that Governor Knight, who felt that physical conditions there were much more extreme than at Albany, considered it expedient to do away with them.

"I killed my Sheep and Ram not thinking it worth while to Raise any of that Sort of Cattle the Winter being so long and the Summer so full of Musketo's that the poor Creatures lives in Missory either being froze in Winter or Eaten full of holes in Summer by the Flyes so that they are all Summer Madd and all Winter Creeping into holes. I killed two goats for the same Reason and design to kill all the rest next week for the Charge and Trouble in keeping them does not Counteract the Profitt of them and being least 6 Weeks Winter more than there is in the Bay [i.e. James] and for want of Berrys and Roots with fish here I think not worth while to keep them." 72.

71. H.B.C., York Post Journal, B 239/a/1, May 9, 1715.

72. Ibid., B 239/a/2, September 29, 1715.

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Livestock were re-introduced to York in the late 1740's. Hogs are recorded at the post in 1746,^{73.} cattle in 1748^{74.} and goats in 1750.^{75.} In the autumn of 1753, four hogs, 13 "roasting pigs," four "Lambs (alias) Goats" and a bull were killed for winter use.^{76.} This slaughter, which included a high proportion of young animals, evoked considerable criticism from the Committee. The Committee feared that the livestock would soon be depleted by slaughters of this sort.

"We expected you would have been more careful of your Livestock which we have been at so much expense in furnishing you with than to have destroyed them by Killing so many in one day no less than six pigs besides four kidds as appears by your journal which by no means answers our Intention in sending such stock nor your promises of frugality in the Expense thereof had you a fed them until they had been Pork they would have been of service to your men which is such a conduct we are far from being satisfied with." 77.

The letter from the Committee appears to have had some effect, for in the autumn of 1755 only two goats, a cow and calf and 15 fowl were killed for winter stock.^{78.} It

73. Ibid., B 239/a/28, September 12, 1746.

74. Ibid., B 239/a/32, October 20, 1748.

75. Ibid., B 239/a/34, November 12, 1750.

76. Ibid., B 239/a/37, October 10, 11, 24 and 26, 1753.

77. Ibid., Governor and Committee to Messrs. James Isham and Council at York Fort, London, 27 May, 1755, A6/9, fol. 9.

78. Ibid., York Post Journal, B 239/a/41, October 16, 1755.

THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and change. From the first settlers to the present day, the nation has evolved through various stages of development. The early years were marked by exploration and settlement, followed by a period of rapid expansion and industrialization. The American Revolution was a pivotal moment in the nation's history, leading to the establishment of a new government and the declaration of independence. The 19th century was a time of great change, with the Civil War and the Reconstruction era shaping the nation's future. The 20th century has been a period of significant progress, with the United States becoming a world superpower and a leader in science and technology.

The United States has a rich and diverse cultural heritage, with people from many different backgrounds and traditions. This diversity has been a source of strength and innovation for the nation. The American dream, the belief that anyone can achieve success through hard work and determination, is a central theme in the nation's history. The United States has played a leading role in the world, from the founding of the United Nations to the space program. The future of the United States is bright, with many challenges ahead but also many opportunities for growth and progress.

The United States is a land of opportunity and freedom. It is a place where people can live their lives as they see fit, without the constraints of a government or a religion. The United States is a place where people can make their dreams come true. The United States is a place where people can be who they are and still be accepted. The United States is a place where people can make a difference in the world.

The United States is a place of hope and possibility. It is a place where the future is bright and the possibilities are endless. The United States is a place where people can make a difference in the world. The United States is a place where people can live their lives as they see fit, without the constraints of a government or a religion. The United States is a place where people can make their dreams come true. The United States is a place where people can be who they are and still be accepted. The United States is a place where people can make a difference in the world.

also rankled Governor Isham, who was not convinced of the value of keeping livestock at the post:

"If its yr. Honrs. pleasure to supply us with a quantity of pease we then might be able to keep a greater quantity of hogs. We have at present 1 bull, 5 Cows, 4 cow calves ... 2 boars 3 breeding sows 4 porkers and 8 pigs, about 3 dozen fowls and 3 she goats ... Yearly they turn out so very mischievous that we do think they are not worth keeping which we refers to your honours pleasures." 79.

Despite complaints of this nature, the Committee was intent upon maintaining livestock at its settlements. Although little information is available on the conditions of animal husbandry at York, an enumeration of the domestic animals at the post in 1757 indicates that by this time small numbers of livestock were being successfully maintained at the settlement. According to the post journal of that year, a total of eight pigs, three cows, two kids and eight fowl were slaughtered for the winter mess, while the following were retained as stock: two sows, one boar, three goats, six fowl, one bull and five cows in calf. Small amounts of barley, peas and oats were needed to maintain the hogs, chickens and horses, while mention is made of 12 bushels

79. Ibid., James Isham to the Governor and Committee, York Fort, September 2, 1755. A 11/114, fols. 185-86.

80. Ibid., B 239/a/44, October 10, 11, 12, 15 and 22, 1757.

of beans being consumed by the horses at York in 1766.^{81.}

The only domestic animal at Severn prior to 1770 was^{82.}
an ox. In that year, however, a horse was obtained from^{83.}
York, and the following year a bull and cow in calf were^{84.}
received from Albany. As at the other northern settle-
ments, these animals were fed in winter on the local marsh
hay, and were allowed to forage on their own in summer.
About the end of the period, a breeding stock of pigs was
sent to Severn from York, which in 1777-78 afforded the post^{85.}
363 pound of pork. Livestock were also sent to the short-
lived Richmond Fort. A cellar was dug at the post in the^{86.}
autumn of 1750 to house the sheep and goats for the winter,^{87.}
and a hen house was constructed for the domestic fowl.
Whether these animals survived the winter on the East Main
is not known. They are last mentioned at the post in 1750.

81. Andrew Graham, op. cit., p. 305.

82. John Macfie, "Severn House in 1770," The Beaver,
Spring, 1970, p. 47.

83. Loc. cit.

84. H.B.C., Humphrey Marten to Andrew Graham, Albany
Fort, June 20, 1771, B 3/b/8, fol. 22.

85. Humphrey Marten referred to by Richard Glover in
Introduction to E.E. Rich (ed.), op. cit., p. xxxi11n.

86. H.B.C., Richmond Post Journal, B 182/a/1, September
10, 1750.

87. Ibid., October 31, 1750.

Besides the domestic animals already noted, small numbers of dogs were also kept at the northern settlements. Although both Indian and Eskimo dogs trained by the natives to haul and carry loads were available to the Hudson's Bay Company men, they were considered too intractable by the men from England to be employed in this capacity. "It is remarkable," wrote Andrew Graham, "that the Indian dog will not serve us although we take them into our factories as puppies, which causes us to have the Newfoundland species from England."^{88.} The aboriginal dogs, according to Hearne,^{89.} were all of the "fox and wolf breed." Not only the Indian dogs, but also the English dogs interbred with the wolves. This, in Graham's view, caused the offspring to retain the "moroseness" of the latter.^{90.}

It is not known when English dogs were first employed on the Bay. Henry Ellis, in remarking upon the dogs at York Factory in 1746-47, distinguished between those at the factory and those kept by the Indians, which implies the presence of the Newfoundland breed by this time. He observed

88. Andrew Graham, op. cit., p. 33.

89. Samuel Hearne, op. cit., p. 207.

90. Andrew Graham, op. cit., p. 33.

The first thing I noticed when I stepped
out of the car was the cold. It was a sharp
contrast to the warm blanket I had been
under. I shivered as I walked towards the
door. The air was crisp and clean, a welcome
change from the stuffy car. I took a deep
breath and felt a sense of peace. The world
was so quiet, so still. I had never felt
like this before. It was a strange feeling,
but it was good. I had found a new
place, a new home. I was free. I was
happy. I was home.

The first thing I noticed when I stepped
out of the car was the cold. It was a sharp
contrast to the warm blanket I had been
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but it was good. I had found a new
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happy. I was home.

that the factory dogs "are regularly fed by the English upon the same allowance as the men; but the Natives are quite remiss in this Respect, so that theirs live chiefly on what they can get."^{91.}

By 1752 the Newfoundland breed, possibly through mating with wolves, was depleted at York Factory. In 1752 Governor Isham requested a "Bitch and Dog/Newfoundland Breed ... the breed being quite gone, and none in the Factory."^{92.}

The dogs requested were sent out the following year, and pups from the first litter were forwarded to Churchill, as that place was also destitute of

Newfoundland dogs.^{93.}

Not only did the Company's servants attempt to employ the only animal domesticate of the northern Indians, but they also endeavoured to domesticate some of the wild animals indigenous to the Bayside. Although the practice did not become of any import, wild geese were occasionally kept at the factories where they were fattened on grain for use in the mess. During the molting season they were sometimes

91. Henry Ellis, A Voyage to Hudson's-Bay by the Dobbs Galley and California, in the Years 1746 and 1747, London, 1748, p. 163.

92. H.B.C., James Isham to the Governor and Committee, York Factory, August 6, 1752, A 11/14, fol. 157.

93. Ibid., James Isham to the Governor and Committee, York Factory, September 3, 1753, A 11/14, fol. 160.

captured by the Indians "who bring a few alive to the factories, where they thrive very well on corn ... When in good condition one goose will weigh nine pounds."^{94.} Samuel Hearne noted that in some years "the young ones can be taken in considerable numbers, and are easily tamed; but will never learn to eat corn, unless some of the old ones are taken with them, which is easily done when in a moulting state."^{95.} Hearne specifically mentions a flock of 41 geese that were fattened within the stockades at Churchill for use during the winter of 1781.^{96.}

Andrew Graham, whose pioneer work on Bayside ornithology was of some note, was particularly interested in keeping wild geese. At Fort Severn in 1772-73, he wrote: "Indians brought in several young grey geese, which I design to bring up, having brought many to live in the cowhouse all winter, and send them to England where they breed."^{97.} He also noted that "My young snow and Canada geese eat oats, and thrive wonderfully well, the same as European tame geese."^{98.}

94. Andrew Graham, op. cit., p. 41.

95. Samuel Hearne, op. cit., p. 281

96. Ibid., p. 282.

97. Andrew Graham, op. cit., p. 345n.

98. Loc. cit.

Graham was successful in sending geese from Severn to England, where they apparently did well.

At York Fort attempts were made to raise partridges in captivity. Although partridge eggs were successfully hatched by domestic fowl at York, the young partridges failed to survive.^{99.} A somewhat different experiment with partridges was attempted at Richmond Fort. There the partridges were taken live with nets and considerable numbers^{100.} were kept in a building constructed for this purpose. The partridges, however, died shortly after being placed in captivity, and the experiment was discontinued.^{101.} Other animals were also kept by the Company's servants on the Bay, but these were retained primarily as pets, and do not figure among the attempts to domesticate wild animals for draft or provision purposes.

B. THE SOUTHERN SETTLEMENTS

The climate at Moose and Albany, in Umfreville's view,

99. Samuel Hearne, op. cit., p. 263.

100. H.B.C., Richmond Post Journal, B 182/a/1, February 20, 1751.

101. Ibid., March 5, 1751.

the first of these is the fact that the
the second is the fact that the

the third is the fact that the
the fourth is the fact that the

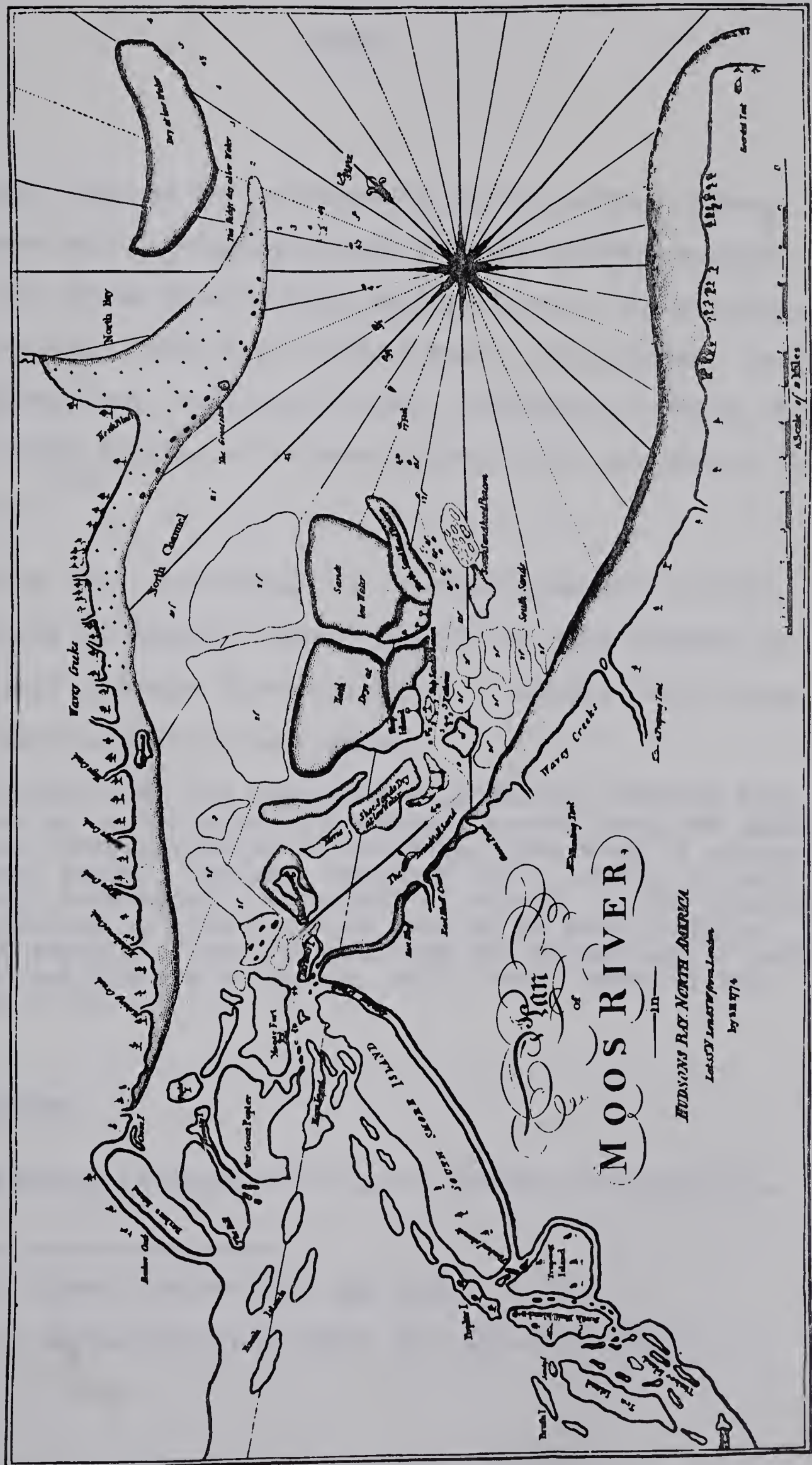
the fifth is the fact that the
the sixth is the fact that the
the seventh is the fact that the
the eighth is the fact that the
the ninth is the fact that the
the tenth is the fact that the
the eleventh is the fact that the
the twelfth is the fact that the
the thirteenth is the fact that the
the fourteenth is the fact that the
the fifteenth is the fact that the
the sixteenth is the fact that the
the seventeenth is the fact that the
the eighteenth is the fact that the
the nineteenth is the fact that the
the twentieth is the fact that the

the twenty-first is the fact that the

the twenty-second is the fact that the

the twenty-third is the fact that the
the twenty-fourth is the fact that the
the twenty-fifth is the fact that the
the twenty-sixth is the fact that the
the twenty-seventh is the fact that the
the twenty-eighth is the fact that the
the twenty-ninth is the fact that the
the thirtieth is the fact that the

Figure 14



Source: E.E. Rich (ed.), Moose Fort Journals 1783-85, London, 1954, at end.



was milder than at the settlements in the north. Beyond the marshy and ill-drained areas at both southern settlements, the trees were of more stately growth, while soils, by implication, were more fertile than in the north. Under these conditions, wrote Umfreville, "Potatoes, turnips, and almost every species of kitchen garden stuff are reared with facility."^{102.}

Moose Fort, following its re-establishment in 1730, was located on Factory Island, one of the many islands in the estuary of Moose River (Fig.14). Captain Coats wrote about conditions there as follows:

"In this river you have many islands, all covered with wood as is the sides everywhere, except here and there 'tis interspersed with Savannahs. The wood is spruce, pine, poplar, juniper, and some burch, shrubs of many sort, covered with a variety of berrys ... The countrys bordering on this river is said to be very fertile, and capable of any culture; and the season not so short nor the winters so severe, as in other parts of the bay." 103.

1. Gardening

Gardening at Moose was slow to develop following its

102. Edward Umfreville, op. cit., p. 14.

103. Captain William Coats, op. cit., pp. 48-49.

re-establishment in 1730. For a short while, however, the Committee in London held out hope for the development of a more substantial arable agriculture at Moose than experience had shown possible at any of the other establishments on the Bay. By this time Moose was the only Bayside post whose agricultural capabilities had not been tested. Although a few garden seeds had been planted there prior to the loss of the post to the French in 1686, no serious attempt at agriculture had been undertaken. The Moose estuary, moreover, had not been settled for almost half a century following the French attack and the area, in consequence, had remained a virtual conundrum in the agricultural experience of the Company. In the absence of evidence to the contrary, this newest and southernmost of the Company's posts was seen as offering not only the last, but also the best, prospect for a prosperous agriculture on the Bay.

Although previous attempts at agricultural self-sufficiency had proven both futile and expensive, this idea was revived in London several years after the new post at Moose was completed. In 1738, Richard Staunton, the Chief at Moose, was taken to task for the sorry state of the gardens at the factory. He was informed by the Committee that the climate at Moose was "the best of any of the

The first of these is the fact that the
government has been very successful in
obtaining the cooperation of the
people in the various projects of
the government. This is a very
important fact, and it is one
which should be noted by all
who are interested in the
progress of the country. It is
a fact which shows that the
people are not only willing to
cooperate with the government,
but that they are also willing
to sacrifice for the good of the
country. This is a very
important fact, and it is one
which should be noted by all
who are interested in the
progress of the country. It is
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cooperate with the government,
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to sacrifice for the good of the
country.

The second of these is the fact that
the government has been very
successful in obtaining the
cooperation of the people in the
various projects of the government.
This is a very important fact,
and it is one which should be
noted by all who are interested
in the progress of the country.
It is a fact which shows that
the people are not only willing
to cooperate with the government,
but that they are also willing
to sacrifice for the good of the
country.

factories," and that there was "ground enough that may be cleared and dug up by the servants" for agricultural purposes. In view of this situation, the Committee directed that the gardens at Moose be expanded, and commanded Staunton to "raise pease enough to serve the factory the whole year."^{104.}

In his reply to the Committee, Staunton attributed the limited gardening at Moose to neglect on the part of his predecessors. He further noted that "we have but once tasted of pease this season: and as for other things nothing worth mentioning for at my arrival [i.e. 1737] we had stumps and other roots growing within our palisades."^{105.} Staunton promised to promote agriculture as far as possible, especially as he had at his disposal a Mr. George Howy, whom he described as "proficient" in the arts of agriculture. Staunton's endeavours at gardening, however, did not satisfy the Committee, and the following year a more detailed directive for the conduct of agriculture at Moose was sent out from London.

"We expected to have heard that you had enlarged and improved your Garden and Ground so as to save the Compy the Great Charge of sending you Peas, Beans,

104. H.B.C., Governor and Committee to Mr. Richard Staunton and Council at Moose River Fort, London, 18 May, 1738, A 6/6, fol. 20.

105. "Letter from Richard Staunton and George Howy, Moose Fort, August, 1738," in K.G. Davies (ed.), op. cit., p.265.

Barley Oats and other Seeds, which you might with little trouble and care Procure your Selves, but instead of fulfilling your promises we are informed you make use of less ground than ever, and therefore we must again recommend to you and insist that you cultivate clear and Improve as much ground as you possibly can." 106.

Staunton, who felt that he had been unjustly censured by the Committee, wrote a strong defence of his gardening efforts at Moose. By return post to the Committee, he noted that, contrary to the information received by the Committee, he had been at great pains to improve and expand the cultivated area at the post. The limited results he had achieved he attributed, not to any shortcomings on his part, but to a number of difficulties that gardening presented at Moose.

The soils, in Staunton's view, were poorly developed and subject to drought, which he described as follows:

"As for the soil there is no right natural earth here but what is occasioned from the many trees which has been blown down and does yearly, which trees has rotted upon the ground and turns into a sort of black mould not above nine inches deep, and all under that nothing but a dry sand, and when that is cleared and digged up, planted and sown, the heat in the summer scorches it up." 107.

106. H.B.C., Governor and Committee to Richard Staunton, London, 1739, A 6/6, fol. 41.

107. "Letter from Richard Staunton and others, Moose Fort, 17 August, 1739," in K.G. Davies (ed.), op. cit., p. 305.

Not only were the sandy soils judged unsuitable by Staunton, but there were other factors which in his view impeded agriculture at the post. Most important was the manner in which gardening interfered with the trade. Gardening was begun about the middle or end of May, or as soon as the frost was out of the ground. When the land became workable, the river broke, which was the time "for the Indians coming to trade, which will be for a month altogether the plantation is not clear of Indians."^{108.} Not only did the presence of the Indians interfere with the gardening, but sending men beyond the stockades at this time compromised the security of the factory. This problem, however, was either completely or partly overcome, for Staunton dug "large spots of ground that never was dug before to sow our turnips, pease,^{109.} beans and other seeds" within the confines of the stockades.

Conditions of this sort, however, militated against cultivation without the fortification, and therefore against the large scale cultivation that the Committee intended. A related problem, and one that was not mitigated, concerned

108. Loc. cit.

109. Ibid., pp. 304, 305.

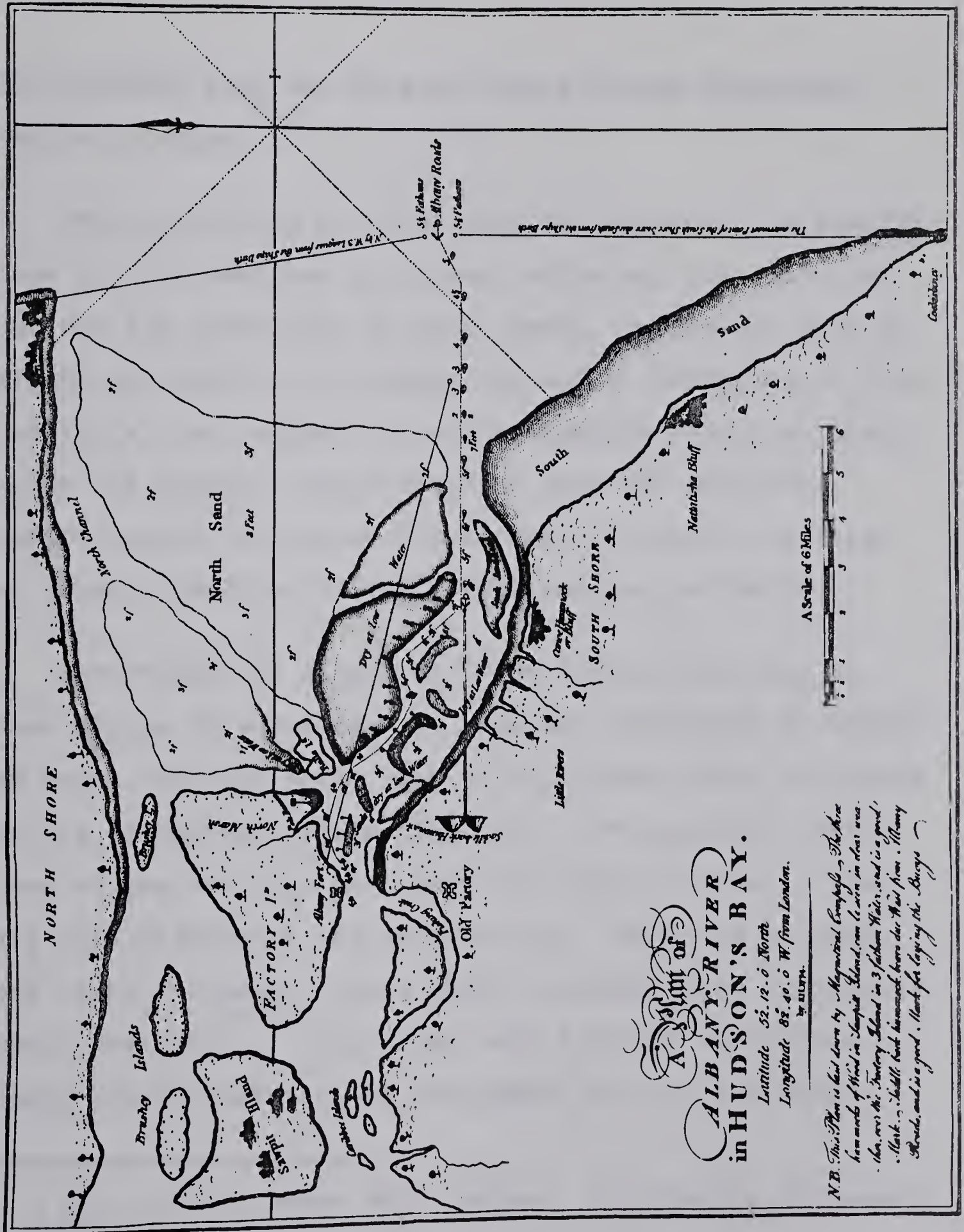
the seasonal demand for labour occasioned by gardening. The period of digging and sowing, which had to be done as quickly as possible in view of the short growing season, but which was time consuming as only hand implements were employed, coincided with the period of maximum trading activity at the post. The labour shortage that this situation generated was a problem that plagued the Company, not only at Moose, but at all the Company's settlements.

Other factors hindering agriculture, according to Staunton, were the quality of the seeds, and the cool summers along the Bay. The seeds sent out by the Company were often old and failed to germinate, while even the vegetables planted at Moose appeared ill-suited to the cool summer. "As for pease and beans," wrote Staunton, "they grow and pods very well to eat when green and young, but never ripens but rots in the pod ... and as for grey peas I had two quarts fresh out of England ... but not one came to perfection neither to eat when green nor to ripen from seed, although we let them stand till the snow came." ^{110.} Even the turnips, which had been "sowed several times until the first of July," ^{111.} failed to produce a crop that summer at Moose, while

110. Ibid., p. 305.

111. Ibid., p. 304.

Figure 15



Source: E.E. Rich (ed.), Moose Fort Journals 1783-85, London 1954, at end.



the following year the peas and beans failed completely^{112.}
because of frost.

Thus, gardening at Moose fell far short of the expectations of the Committee in London, which had held out some hope for the production of peas, beans, barley and oats in sufficient quantity to replace the annual shipments of these foodstuffs from England. The discouraging record at Moose during the decade 1730-40 was such that the Committee finally ceased to implore its officers to raise the pulse and cereals required at the establishments on the Bay.

Agriculture at Albany differed little from that at Moose during this period. In 1721 the settlement at Albany was moved from the south bank of the Albany River to nearby Bayly's or Factory Island (Fig. 15). The physical conditions at the new site were much like that at Moose. The main site difference was pedological. The soils at Moose were light and sandy, while those at Albany were heavy and^{113.} poorly drained. There was only a slight difference in summer climate between the two places and, as the same

112. H.B.C., Moose Fort Journal, B 135/a/10, September 9, 1740.

113. Ibid., Albany Report on District, 1815-16, B 3/e/2, fol. 3.

THE UNIVERSITY OF CHICAGO
CHICAGO, ILL.

TO THE EDITOR OF THE JOURNAL OF THE
ROYAL ANTHROPOLOGICAL INSTITUTE
I have the honor to acknowledge the receipt of your
letter of the 10th inst. and in reply to inform you
that the same has been forwarded to the
proper authorities for their consideration.
I am, Sir, very respectfully,
Yours faithfully,
J. H. HENNESSY

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conditions of economy and security prevailed at both posts, the gardens were very much alike. Turnips, coleworts and other greens, peas and beans were the most important garden crops at Moose and Albany. Carrots, parsnips, cabbages and other vegetables were occasionally planted, but by far the most important were the turnips and coleworts. The latter were grown for both summer and winter use, while the peas and beans, which ranked next in importance, were raised for summer use only and were eaten green.

Gardening at the other southern settlements was much like that at Moose and Albany. At Henley House, which was founded in 1743 and temporarily abandoned for several years on two occasions prior to 1774, turnips and coleworts were also the most important vegetables. Peas were also grown there and appear to have been more successful than at the tidewater posts. They were sometimes sent from Henley to treat the officer's mess at Albany. The peas, as well as other vegetables grew more rapidly at Henley House than at the settlements on the Bayside. For example, in a note exchanged between Henley and Albany dated August 14, the officer in charge of Henley noted: "I have sent you a few peas as we have them/our Early pease are too Old for the Want of an opportunity sooner ... likewise sent some

turnips." ^{114.} Eastmain, where a slooping trade was begun in 1723, did not receive a permanent complement of men until 1770. However, the men who summered over at the post began gardening at least as early as 1754. ^{115.} Again, the vegetables most frequently noted in the post journal were turnips and coleworts.

Intermittent attempts to raise cereals at the southern settlements failed. As Andrew Graham wrote, "Barley and Oats have been sown severaltimes in the gardens at Albany and Moose Forts, which grewed fine and high, but never advanced so far as to fill, because the frosty nights begins so soon in August. Nay! indeed in the latter end of July frosty nights are a great detriment to our gardens." ^{116.} The most encouraging results with cereals at the southern settlements were achieved in singular years at Moose and Henley House. In the spring of 1746 ground was cleared at Henley House "to make Corn Land of," ^{117.} and the unidentified

114. Ibid., Thomas Powell to Humphrey Marten, Henley House, August the 14th, 1771, B 3/b/8, fol. 27.

115. Ibid., Eastmain Post Journal, B 59/a/23, May 21, 1754.

116. Andrew Graham, op. cit., p. 134.

117. Ibid., Henley Post Journal, B 86/a/3, May 2, 1746.

cereal planted there was harvested on October 11.^{118.}
Some of the grain had matured to the extent that it was considered worth threshing. However, the threshing revealed that "not so mutch good Corn as we Sow'd" had been reaped,^{119.} and attempts at cereal culture were discontinued at the post. The only indication of cereal cultivation in the Moose post journal that might be construed as encouraging was in 1773. On July 17 of that year, the journalist recorded that barley and oats were "in full Ear" at the post.^{120.} There is no subsequent reference to the barley and oats in the post journal, indicating perhaps that neither grain did as well as the description of their appearance in mid-July would suggest.

Potatoes were introduced to the Bottom of the Bay just prior to their arrival at the northern factories. It is probable that the first potato planting on the Bay was instigated by Humphrey Marten. Marten was a keen gardener and at his own expense brought out various seeds and livestock to the Bay.^{121.} In the period 1764-74 he commanded

118. Ibid., B 86/a/4, October 11, 1746.

119. Ibid., October 17, 1746.

120. Ibid., Moose Post Journal, B 135/a/52, July 17, 1773.

121. Humphrey Marten referred to by Richard Glover in Introduction to E.E. Rich (ed.), op. cit., p. xxxiii.

The first of these is the fact that the
 government has been unable to
 secure the necessary funds to
 carry out its policy of
 maintaining the value of the
 pound sterling. This has led to
 a situation where the government
 has been forced to resort to
 measures which are not in the
 long-term interests of the
 country. The second of these
 is the fact that the government
 has been unable to secure the
 necessary funds to carry out
 its policy of maintaining the
 value of the pound sterling.
 This has led to a situation
 where the government has been
 forced to resort to measures
 which are not in the long-term
 interests of the country.

The third of these is the fact that
 the government has been unable
 to secure the necessary funds
 to carry out its policy of
 maintaining the value of the
 pound sterling. This has led
 to a situation where the
 government has been forced to
 resort to measures which are
 not in the long-term interests
 of the country.

The fourth of these is the fact that
 the government has been unable
 to secure the necessary funds
 to carry out its policy of
 maintaining the value of the
 pound sterling. This has led
 to a situation where the
 government has been forced to
 resort to measures which are
 not in the long-term interests
 of the country.

the post at Albany. Andrew Graham wrote that "My friend Mr. Marten, Factor at Albany, informs me that he has been successful in regard to potatoes."^{122.} It was Marten's success with potatoes at Albany that prompted Graham to try the same experiment at Churchill. It might also be noted that it was in Marten's garden at York, where he became commandant following his service at Albany, that the first potatoes were raised at that post in 1778. The only southern settlement other than Albany where potatoes were planted during this period was Moose, where they are first mentioned^{123.} in 1772. The initial trials with potatoes at the Bottom of the Bay were more successful than those at the northern settlements. In commenting on the potato crop at Albany in 1773, for example, Humphrey Marten wrote: "Our gardens^{124.} turned out tolerable 139 lbs of Potatoes." However, as at the northern settlements, potato culture had just begun at the Bottom of the Bay by the end of this period. Only a few bushels had been raised at the different posts, and the potato was still a novelty rather than a proven crop on the Bay.

122. Andrew Graham, op. cit., p. 135.

123. H.B.C., Bacchus Kitchin to Humphrey Marten, Moose Fort, August 21st, 1772, B 3/b/10, fol. 2.

124. Ibid., Humphrey Marten to Thomas Moore, Albany Fort, March the 1st, 1774, B 3/b/11, fol. 10.

No information is available from the post journals on acreages or yields at the southern settlements. Robert Griffin testified before the Parliamentary Committee in 1749 "That the Land is cultivated for about a mile around Albany Fort, being dug with spades."^{125.} Perhaps small patches of land were cultivated in isolated spots beyond the stockades at Albany at this time, but there is no reason to believe that the total area described by Griffin was cultivated. The Committee frequently ordered the factors at the different posts to clear a field of fire for a mile's distance around the forts. A considerable amount of land might have been cleared of trees around Albany for this reason, which may have encouraged some gardening beyond the stockades. Although no estimates are available on garden sizes during this period, subsequent evidence would suggest that the gardens at the southern settlements were roughly similar in size to those in the north.

In the first district report from Albany in 1815, it was reported that the "ground in cultivation at this place does not extend to an acre."^{126.} It was subsequently noted

125. Robert Griffin in United Kingdom, op. cit., p. 226.

126. H.B.C., Albany Report on District, 1815, B 3/e/1, fol. 1.

that the cultivated land comprised "8 different divisions
of unequal extent."^{127.} In 1814 Eastmain reported an acre
and a half under cultivation,^{128.} while at Moose about two
acres were planted in 1814.^{129.} It is unlikely that the
gardens were much larger at any of these establishments in
the period 1713-74, since at the time the district reports
were written the Company was offering strong inducements
to agriculture at all its posts, including those at the
Bottom of the Bay. Although the areas cultivated at the
southern settlements during the period 1713-74 varied from
time to time, it is improbable that they averaged much more
than an acre in extent. Since the cultural practices were
on the whole similar to those in the north, yields would have
been about the same, or slightly larger, than in the north.

2. Livestock

Livestock disappeared from the Bottom of the Bay
sometime following the attempt to raise sheep and goats there

127. Ibid., 1815/16, B 3/e/2, fol. 3.

128. Ibid., Eastmain Report on District, 1814, B 59/e/1,
fol. 3.

129. Ibid., Moose Report on District, 1815/16,
B 135/e/3, fols. 2-4.

during the French Wars. They were not re-introduced until
130,
1747, at which time two cows, a bull and two sheep
131.
were landed at Albany Roads. Prior to 1747 there is
some mention of small numbers of pigs at the southern settle-
ments. A few pigs were carried out annually by the supply
ships and were slaughtered shortly after their arrival.
132.
They served only to afford a special mess or two once a year,
and no attempt was made to maintain the pigs over the winter.
These animals probably came from the Orkneys, since the
outward bound ships by this time regularly put in "at
Stromness in the Island of Pomona in the Orcades of Scot-
land to hire labouring men for the country service, and to
133.
get a stock of fowls etc. for the Captain's table."

Livestock to be kept at Moose were probably sent out
about the same time as those consigned to Albany. The

130. Ibid., Albany Post Journal, B 3/a/47, October 20,
1754.

131. Ibid., B 3/a/39, August 14, 1747.

132. Ibid., B 3/a/36, October 19, 1744; B 3/a/37,
October 17, 1745.

133. Andrew Graham, op. cit., p. 300.

earliest indication of livestock at Moose was afforded by one of the witnesses at the Parliamentary inquiry in 1749, who mentioned haymaking at Moose in his testimonial.^{134.} The emphasis in livestock was upon cattle and, by the end of this period, persons designated as "cowkeepers" were employed at the different posts. Other livestock were also kept in small numbers. Mention has already been made of sheep, while hogs and fowl were present at most of the posts by the end of the period.

As at the northern settlements, the cattle were maintained in winter almost exclusively upon hay derived locally. Even at the southern settlements, hay was procured with considerable difficulty and occasionally could not be obtained in sufficient quantity to support all the animals. The hay was made from the marsh grasses that occurred in the "Savannahs" described by Captain Coats, or the open areas where drainage was too poor to support woody vegetation. Although none too nutritious, if enough could be procured to last the long winter season it was sufficient to maintain the animals. At both Moose and Albany hay was

134. John Hayter in United Kingdom, op. cit., p. 221.

collected from the islands in the river estuaries and was carried by boat to the settlements where stables or "bires" housed the cattle for the winter. Some hay was also collected from the "plantations", or the cleared areas around the forts, and at Albany an attempt was made to improve this land by "Cutting down the Noles ... to make the better mowing and the getting more Hay." ^{135.} The bulk of the hay was procured with considerable labour from the islands. At Moose, for example, haymaking was regularly conducted on Middleborough Island and Pilgrim's Island, and on a number of smaller islands such as Mancy and the Puppy Islands. In summer the cowkeepers were given other duties and the cattle were allowed to forage for themselves along the river and coastal margins.

Cattle and oxen were maintained, not only as a source of fresh provisions, but also as draught animals. They were particularly useful in hauling the huge amounts of firewood required which, like the timber required for construction and repair, had to be procured at considerable distances from the forts. As a source of provisions, they afforded

135. H.B.C., Albany Post Journal, B 3/a/52, October 20, 1759.

The first of these is the fact that the
 government has been unable to
 secure the necessary funds to
 carry out its policy of
 maintaining the value of the
 pound sterling at its present level.
 This has led to a situation where
 the government has had to
 resort to printing money to
 finance its operations.

The second of these is the fact that
 the government has been unable to
 secure the necessary funds to
 carry out its policy of
 maintaining the value of the
 pound sterling at its present level.
 This has led to a situation where
 the government has had to
 resort to printing money to
 finance its operations.

The third of these is the fact that
 the government has been unable to
 secure the necessary funds to
 carry out its policy of
 maintaining the value of the
 pound sterling at its present level.
 This has led to a situation where
 the government has had to
 resort to printing money to
 finance its operations.

The fourth of these is the fact that
 the government has been unable to
 secure the necessary funds to
 carry out its policy of
 maintaining the value of the
 pound sterling at its present level.

fresh meat and, despite the meagre forage of the Bayside, some milk as well.^{136.} A regular slaughter was conducted in fall, when the livestock were at their best and the meat could easily be preserved without spoilage. Not infrequently cattle were also slaughtered out of sheer necessity. This was sometimes the case in winter, when the animals had to be done away with because of a dearth of hay. At times they were shot because they had become so wild in the course of the summer that they could not be herded back to the establishments in fall. Cattle were also killed when no other provisions were available, or to provide relief from long periods of almost sole dependence upon salted provisions.

The cattle at the southern settlements were a small breed. In their prime in autumn, slaughtered cows dressed at about 300 pounds and oxen at 500 pounds.^{137.} They were also very hardy. They survived and reproduced in the rigorous environment of the Bayside without ill-effect, and were capable of producing milk on the limited diet of marsh grasses. Nowhere

136. Ibid., B 3/a/61, May 8, 1769.

137. Numerous references in the Moose and Albany post journals.

are the cattle at the southern settlements referred to specifically as to breed. They are described only as "black cattle."^{138.} Although in previous instances in the period literature of the Company black cattle are referred to only in the Scottish context, the term itself has no specific connotation and at best suggests cattle of no well defined breed. However, following 1774 a new breed of cattle was introduced to Albany and Moose. As the latter were described as of the "English breed" to distinguish them from the other cattle at these two posts,^{139.} there can be little doubt that the black cattle at Moose and Albany prior to 1774 were of Scottish origin.

Selective cattle breeding in Scotland did not begin effectively until the late eighteenth century and none of the breeds for which this country is famous had emerged in any numbers until the nineteenth century.^{140.} The two main races

138. Andrew Graham, op. cit., p. 252. See also "Letter from Willm. Falconer to Mr. Edward Jarvis, Chief at Albany Fort, Severn, 23d Jany. 1784," in E.E. Rich (ed.), Moose Fort Journals 1783-85, Appendix A, p. 181: "Letter from Wm. Falconer to Mr. John Thomas, Chief at Moose, 23d Jany. 1784," in ibid., Appendix A, p. 182.

139. H.B.C., John Thomas to John McNab, Moose Fort, July 26th, 1797, B 3/b/34, fol. 5.

140. John E. Rouse, World Cattle, Norman, 1970, Vol. I, p. 281.

from which all the modern Scottish breeds have derived are the Great Ox or Urus and the Celtic Shorthorn.^{141.} The Great Ox, a large-boned animal that stood six feet high at the shoulder, was the indigenous wild oxen of Scotland. The Celtic Shorthorn, in contrast, was a small, deer-like animal that appeared in Scotland with the first Neolithic settlers. Subsequently, the two stocks have been so mixed, and selective breeding by man has been so effective, that it is impossible to attribute the origin of any of the modern breeds to one or another of the two main races. It is possible, however, to recognize gradations in the relative influences of the two.

According to Professor Ritchie, the Highland and Island breeds reflect most strongly the domestic race of the early Celts, while the Lowland cattle were increasingly permeated with the blood of larger cattle derived from the Urus and carried into Scotland by invaders from Europe. Thus, at one pole are the Highland Kyloes, the Hebridean, extinct Orkney and original Shetland breeds. On the other hand, the modern Shorthorn and Aberdeen-Angus most strongly reflect the blood of the Urus. Of the other important Scottish breeds, the

141. James Ritchie, op. cit., p. 60.

Galloways and Ayrshires are largely of Celtic Shorthorn
142.
origin.

During the eighteenth century, the term black was indiscriminantly applied to all the cattle of the Scottish Highlands and Islands. Throughout this period, for example, the term was used in connection with the great black cattle droves, or the trade in cattle between the Highlands and Scottish Islands, and the market towns of northern England.^{143.} This usage is further evident in Youatt's classic study of British cattle wherein the term black cattle is employed only in the context of the Highland and related descendants of the Celtic Shorthorn.^{144.}

The weight and hardiness of the black cattle at Moose and Albany also strongly suggests a close relationship to the Celtic Shorthorn. The Hudson's Bay Company cattle appear to have been somewhat larger than those of Orkney and other dwarfed breeds of black cattle such as those of Shetland or

142. Ibid., p. 60ff.

143. A.R.B. Haldane, The Drove Roads of Scotland, Edinburgh, 1968, pp. 92, 103, 104, 109, 114, 139n, 140, 187.

144. William Youatt, Cattle; Their Breeds, Management and Diseases, London, 1893, pp. 11-270.

the Outer Hebrides, which would suggest Celtic descendants of mainland origin. Whatever the case, they were possessed of two outstanding attributes - a hardy nature and a small slender structure. Their bone structure according to Ritchie, was more akin to that of their wild ancestors than to the finished product of domestication. These, however, were characteristics of advantage in the agriculturally rigorous climates of the Scottish Highlands and Islands, as is strongly manifest in the following description written at the beginning of the nineteenth century:

"A bull of the Kyloe breed should be of a middle size, capable of being fattened to fifty stone avoirdupois. His colour should be black (that being reckoned the hardest and most durable species), or dark brown, or reddish brown, without white or yellow spots ... Strangers, on visiting the Western Isles, cry out against the folly of the people in keeping cattle of a small breed; when by changing it for the Irish or the Lowland Scotch, they might greatly enlarge the carcasses of their stock. But this is often rash opinion. The great question in Hebridean grazing and rearing is, what breed will answer the land and climate, and what size can most easily and securely raised at small expense? Heavy cattle cannot seek their food in bogs and marshes, leap over ravines, rivers, and ditches, or scramble through rocks ... like the present breed, which is almost as active and nimble as a Chamois goat; nor can the poor Hebridean tenant afford to breed any stock which is not proof against the inclemency of his rains and storms all year round. It is infinitely safer for him, therefore, in the present state of his agriculture, and perhaps even at all times ... to rear too small, than too large a breed

of cattle; and to improve his indigenous, hardy, excellent species, than to import from other districts such breeds as may be indeed profitable for their circumstances and climate, but, which would probably perish in the Hebrides." 145.

Cattle of this nature, although their size and structure were not conducive to substantial beef production, were admirably suited to the harsh conditions of the Bayside wilderness. Moreover, they required a minimum of care and afforded a profitable return in draft service, milk and meat within the strict physical and economic limitations to husbandry at the Company's posts.

Although the numbers of cattle fluctuated considerably from year to year at the Hudson's Bay Company's southern settlements, by the end of the period the herds were large enough to permit slaughtering in most years. A variety of factors reduced livestock numbers at irregular intervals, among which might be mentioned the difficulties in maintaining the animals in winter, variations in the demand for fresh provisions and exposure to wolves and other natural hazards. Because of these variations it is difficult to arrive at a

145. James Macdonald, General View of the Agriculture of the Hebrides, 1811, quoted in A.R.B. Haldane, op. cit., pp. 235-36.

meaningful figure for livestock numbers at the southern settlements. At Albany in the spring of 1769 the journalist recorded "turned 29 head of Cattle out ... kept two cows for milk."^{146.}

This count apparently did not include all the animals, for in January of the following year Humphrey Marten wrote: "Indeed I have killed no more than one small Steer and two Cows for this I left 37 head of Cattle and yet when they came in in the Winter I found no more than 29 Young and Old."^{147.}

The herd at Moose was at least as large as that at Albany. No figures are available on the total number of cattle at this post, but some indication of numbers can be derived from the comments on slaughtering in the Moose post journal. In the autumn of 1768, three cattle were slaughtered^{148.} at Moose, ^{149.} three were killed in the fall of 1769 and

146. H.B.C., Albany Post Journal, B 3/a/61, May 8, 1769.

147. Ibid., Letter from H. Marten to Christopher Gafton, Albany Fort, Janry 6th, 1770, B 3/b/7, fol. 26.

148. Ibid., Moose Post Journal, B 135/a/46, November 25, 1768.

149. Ibid., B 135/a/48, November 21, 1769.

four in the autumn of 1770.^{150.} This would suggest a herd size similar to that at Albany at this time. In the copy of Andrew Graham's "Observations on Hudson's Bay" dated circa. 1775, Graham noted that at Albany they had "plenty of beef, having upwards of thirty head of cattle."^{151.} Cattle were introduced to Eastmain House in 1771, or one year after Eastmain was given a permanent complement of men. In that year a bull and a cow from Albany, and a cow from Moose, were sent to that post.^{152.} The cattle appear to have done well, for in 1784 it was noted at Eastmain: "have sent three of our Cattle out of our small stock, two for York Fort and one for Severn."^{153.} There is no evidence for livestock at Henley House during this period.

Besides cattle, sheep and hogs were kept at Albany and Moose. The sheep appear to have contributed much less in the

150. Ibid., B 135/a/49, November 12 and November 14, 1770.

151. Andrew Graham quoted in E.E. Rich (ed.), op. cit., Appendix B, p. 330.

152. Ibid., Albany Post Journal, B 3/a/64, September 3, 1771.

153. "Letter from Geoe. Atkinson to Mr. Thomas Chief at Moose Fort, Eastmain, 23d June 1784," in E.E. Rich (ed.), op. cit., Appendix A, p. 204.

the way of food than did the hogs. Little information is available on the nature of the hogs at the southern settlements. They were capable of foraging on their own in summer, but were housed at the settlements in winter. In 1795 "a breed of fine Hogs" was introduced to Moose. These pigs appear to have been more dependent upon imported feed.^{154.} Since prior to this time hogs were kept at both Albany and Moose without any mention of imported feed, it would appear that the older breed of pig was capable of surviving on a poorer diet. It is most probable that these pigs, like those at Churchill at this time, were Orkney in origin.

Dogs were also kept at the southern settlements. There is some evidence for English dogs at the Bottom of the Bay. In 1796 for example, a request for English dogs was sent from Osnaburgh House to Albany.^{155.} Attempts were also made to domesticate wild animals at the southern posts, but they were kept only as pets or curiosities.

154. H.B.C., Mr. Thomas to John McNab, Moose Fort, 6th September, 1795, B 3/b/33, fol. 1.

155. Ibid., J. Sutherland to Albany, Osnaburgh House, 3 Feby 1796, B 3/b/33, fol. 12.

C. FACTORS AFFECTING BAYSIDE AGRICULTURE

Following a century of permanent English settlement on the shores of Hudson Bay, agriculture did not develop beyond a limited kitchen gardening and the tending of small herds of livestock. Foremost among the reasons for the limited agriculture at the Company posts during this period was the harsh nature of the Bayside physical environment. The greatest environmental obstacle to agriculture was climate. Confined, with the exception of Henley House, to the littorals of Hudson and James Bays, the agriculture that developed was conducted within regions of arctic and sub-arctic climates respectively.^{156.} The cool, short summer was the main factor

156. The term "arctic" is used here only in reference to the immediate coastal environs of the northern settlements. As H.A. Thompson has pointed out "the lands surrounding Hudson Bay are mostly unforested ... essentially then, Hudson Bay and its environs have a typically Arctic climate. A few miles inland, however, along southern and southwestern shores, the unforested coastal plains are replaced by wooded country of the sub-Arctic. ... In contrast to the broad expanses of Arctic tundra that surround Hudson Bay, the sub-Arctic lands bordering James Bay are partially forested and thus protected from the strong winds." See H.A. Thompson, "The Climate of Hudson Bay," in C.S. Beals (ed.), Science, History and Hudson Bay, Ottawa, 1968, pp. 267, 284. This distinction is further borne out by D.B.O. Savile, whose map shows a treeless section extending along the west coast of Hudson Bay from Churchill to Cape Henrietta Maria. On the map, as well as during the period under consideration, the area surrounding York Factory is anomalous in that it is characterized by more woody vegetation than is typical along the west coast of Hudson Bay. See D.B.O. Savile, "Flora and Fauna of Land Areas," in ibid., pp. 398-401.



THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
530 SOUTH EAST ASIAN AVENUE
CHICAGO, ILLINOIS 60607-7070
TEL: (773) 835-5100
FAX: (773) 835-5101
WWW: WWW.CHEM.UCHICAGO.EDU

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
530 SOUTH EAST ASIAN AVENUE
CHICAGO, ILLINOIS 60607-7070
TEL: (773) 835-5100
FAX: (773) 835-5101
WWW: WWW.CHEM.UCHICAGO.EDU

inhibiting agriculture in both regions.

The temperature characteristics of the Bayside summer are due in large measure to the dominance of arctic air. In North America, at least, the transition from arctic to sub-arctic is climatically related to the summer position of the arctic frontal system.^{157.} The mean summer position of the arctic frontal zone arcs southward of Hudson Bay, crossing its waters roughly midway between Cape Henrietta Maria and the southern tip of James Bay (Appendix A, Fig. 18). South of this mean position arctic air is still a frequent summer phenomenon. Even in July, its frequency of occurrence is about 20% along the southern shore of James Bay (Appendix A, Fig. 19). The frost-free period, in consequence, ranges from only 60 to 80 days (Appendix A, Fig. 24). Because of the summer intrusions of arctic air, however, frosts due to nocturnal cooling can occur anywhere along the coast in the summer months. Although there are wide local variations in the incidence of frost, depending on the proximity of the Bay, or on the presence of lakes or muskeg, freezing temperatures have been recorded in all months at weather stations

157. Doris Love, "Subarctic and Subalpine: Where and What?," Arctic and Alpine Research, Vol. 2, No. 1, Winter, 1970, p. 69.



THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and change. It begins with the first settlers who came to the Americas in search of a new life. They found a land of opportunity, but also a land of challenges. The early years were marked by conflict and struggle, as the settlers fought to establish a new society. Over time, the United States grew from a small colony into a powerful nation. It was a process of constant evolution, shaped by the dreams and aspirations of its people. The story of the United States is a testament to the power of the human spirit and the ability to overcome adversity. It is a story of hope and progress, of a nation that has always been looking forward.

on the coast of James Bay.^{158.} Absolute minimum temperatures recorded at Moosonee for July and August, for example, are 29 degrees F. and 30 degrees F. respectively.^{159.}

Although southwesterly winds from the heart of the continent can bring very warm air to the margins of the Bay in summer, such as at Moosonee where 90 degree F. temperatures have been recorded in all months from May to August,^{160.} summer temperatures are generally low. Even at Moosonee the mean July temperature does not exceed 60 degrees F.^{161.} These relatively low temperatures are due in part to the intrusions of arctic air and concomitant cloudiness along the arctic front. They also reflect the cooling effect of the waters of the Bay which, in large measure, is responsible for the shortness and coolness of summer at the coastal locations.^{162.}

Hudson Bay, including James Bay, is sufficiently large to exert an appreciable influence upon the summer temperatures

158. H.A. Thompson, op. cit., p. 285.

159. Canada, Dept. of Transport, Meteorological Branch, Temperature and Precipitation Tables for Ontario, Vol. IV, 1967, p. 23.

160. H.A. Thompson, op. cit., p. 285.

161. Loc. cit.

162. Ibid., p. 267.

of the adjacent mainland. It is largely ice-covered in spring and early summer, and the water remains cold even in late summer. By summer's end water temperatures are only slightly above freezing in northern sections and are about 45 degrees F. in the south.^{163.} This large expanse of very cold water delays spring on the adjacent land, both by advectively depressing the air temperature and by inducing the formation of fogs or low cloud, which prevent the sun from warming the ground. On Hudson Bay, 80% cloud cover is experienced at most locations in spring, while 70% is reported at most stations in summer.^{164.} A large percentage of the incoming solar radiation is reflected back into space, retarding the advent of spring and depressing temperatures precisely when the high angle of incidence of solar radiation and long days might otherwise induce high radiation receipts.

The warming effect of the open water in autumn, which is well known in most maritime areas, has little or no impact upon the Bayside from an agricultural point of view. The heating of the water is not of sufficient magnitude to have an appreciable effect in delaying frost on the coast. In

163. Loc. cit.

164. Ibid., p. 279.

any event, the open water has little effect upon prolonging the growing season, for, by the time it begins to produce a warming effect, temperatures are such that the growth of most plants has ceased.^{165.}

For the most part, it was the coolness, rather than the shortness of summer, that circumscribed the sort of agriculture in which the Company's servants could engage at their Bayside posts (Appendix A, Fig. 25). A variety of crops, such as oats and barley, are raised successfully in the Clay Belt of Ontario where similar frost-free conditions prevail, but where summer temperatures are warmer. The cool daily temperatures of the Bayside summer do not allow of sufficient heat accumulation to bring the same crops to maturity.^{166.} The effect of frost on the Bay, however, should not be minimized. It was a significant hazard to gardening and not infrequently had a killing effect upon the few plants capable of maturing in this area. Drought also had some impact upon the gardens, but it was neither a significant hazard nor a limiting factor to agriculture on the Bay. Primarily, it was the cool, short summer that precluded

165. D.B. Savile, op. cit., p. 407.

166. J. Lewis Robinson, "Geography of Hudson Bay, Part I, Regional Geography," in C.S. Beals (ed.), op. cit., Vol. I. p. 211.

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cereal cultivation. It also prevented the cultivation of pulse. Unlike the French, who had found the climate of the St. Lawrence valley poorly suited to wheat culture and in some areas grew peas as a dietary staple, the Company's men were limited to raising a few hardy European vegetables. The temperature characteristics of the Bayside also had a limiting effect upon the forage for livestock, while the long winters stressed this meagre resource to the extent that only small numbers of livestock could be maintained with reasonable economy.

The main difference between the agriculture practised at the northern and southern settlements was one of degree rather than kind. Roughly the same combination of plants and animals characterized agriculture at the two groups of settlements. Since the same general conditions of economy prevailed ubiquitously on the Bay, these differences were due to the different degrees of harshness of the Bayside environment. Although the same vegetables were planted at the northern settlements, few were raised to maturity, while those that matured did so less frequently. Similarly, the same kinds of livestock were kept at the northern settlements. The more limited forage together with the longer winters at the northern settlements discouraged maintaining as many

livestock as were kept at the southern settlements.

Despite the great latitudinal range between the two groups of settlements, roughly the same kind of agriculture was possible in both areas. Such was the case because the limitations imposed by summer temperatures were almost as pronounced at coastal locations on the Bottom of the Bay as at York and Churchill. Temperature differentials between north and south on the Bayside are considerably less in summer than in winter. For example, in July mean temperatures at Churchill and Moosonee differ by only 5.4 degrees F. In January, on the other hand, they differ by twice this amount.^{167.} The smaller differential in summer is due primarily to the moderating effect of the open water of the Bay. Summer isotherms, in consequence, tend to parallel the littoral (Appendix A, Fig. 21), while those in winter assume an almost latitudinal orientation (Appendix A, Fig. 20). Because of the relatively homogeneous distribution of summer temperatures along the coast, together with the longer hours of sunlight received at the northern settlements, the

167. Canada, Dept. of Transport, Meteorological Branch, Temperature and Precipitation Tables for Ontario, Vol. IV, 1967, p. 23, and Temperature and Precipitation Tables for Prairie Provinces, Vol. III, 1967, p. 42.

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difference in agricultural potential between north and south was not nearly as great as latitudinal positions implied.

Next to climate, soils comprise the most important environmental obstacles to agriculture in this region. Because of the long winters and cool summers, the youthful parent materials of the Bayside have been little altered by weathering. Profile development is very limited and organic material is either lacking or is available in only slightly decomposed form. Nowhere along the Bay, in consequence, are the soils fertile. Although there were varying conditions of texture and drainage at the Company's settlements, even the best soils at the different posts were poor for agriculture. Attempts were made to improve the soil at the different establishments, but the overall impact of soils upon agriculture was to limit in varying degree the yields of the few garden crops that the climate allowed. It should be noted that soil differences among the different settlements, although they were substantial, were not noticeably mirrored in the character of agriculture from one settlement to the next.

Within this hostile environment no attempt was made to locate the posts advantageously with respect to agriculture. Dobbs was perfectly correct when he wrote that the settlements

were poorly sited for agriculture, being fixed without regard to "Soil, Aspect or Situation."^{168.} The choice of site for the Company's establishments was governed, not by agricultural considerations, but by concerns of economy and defence. In effect, the Company's factories of this period were fortified entrepots. They were located in defensible positions along the coast where they could best be secured from both seaborne and overland attack. Each possessed cannon and substantial defensive works. Sites, in consequence, were selected so that topography did not interfere with the field of fire of the main armaments. Where vegetation would protect or conceal an invader, it was cleared from the environs of the posts. The positions of the posts also made them accessible to the ships from England, and to the annual flotillas of Indian canoes from the interior. The economic importance of this basic arrangement was such that it precluded construction on marine islands, where canoes could navigate only at great risk, or inland along rivers, where access was difficult or impossible for sailing vessels.

Thus, the Company's posts were sited, not where they enjoyed microclimatic advantages, but where they were in

168. Arthur Dobbs, An Account of the Countries Adjoining to Hudson's Bay, London, 1744, p. 52.

large degree exposed to the full force of a hostile climate. Had they been located some distance inland, they would have escaped to some extent the fogs and chilling winds of the littoral, while on the coast neither vegetation nor topography was such to afford the settlements shelter. Where microclimate was considered, it was exploited with the limitations of sites chosen for other purposes. For the most part, this amounted to cultivation within the stockades, where it was practice to exploit shelter and aspect to some degree.

The wilderness setting of the posts also had a negative effect upon agricultural activity. Its main impact was upon the livestock. The cattle, goats and sheep, in order to survive on their own in summer, wandered through the marshes and muskeg in a manner which precluded tending by the cow-keeper. By summer's end the animals were so wild that they could be collected for winter only with great difficulty. Not infrequently their wildness was such that individuals evaded their captors to perish in the frozen marshes in winter. In summer, animals were sometimes lost to wolves and, on occasion, to starving Indians. Others simply wandered off never to be seen again. The animals were also exposed throughout summer to the constant torment of flies. The latter

no doubt influenced meat production, and in extreme cases were fatal to some of the animals. According to Andrew Graham, "They are very troublesome to our domestic cattle, continually harassing them about. The horses are rubbed over with train-oil to protect them from these rude visitants, who frequently torture our swine by biting holes through their skin, so that these animals are obliged to be taken care of."¹⁶⁹ Creatures of the wilderness, such as birds and rodents, probably took some toll on the gardens as well, but they are not mentioned in this context in the journals of the different posts. Grubs or caterpillars are the only hazards noted in this connection.

The seeds sent to the posts at this time were probably British varieties, which were not the most suitable for the Bayside environment. At times they were of poor quality, old, or damaged to the extent that they would not germinate. Although individuals on the Bay on occasion obtained seed at their own expense from sources other than the Company, generally the annual seed package from England was employed at the different posts. Most of the vegetables planted on Bay at this time did not mature sufficiently to produce seed.

169. Andrew Graham, op. cit., p. 125.

This, together with the practice of sending seeds out annually, militated against varietal development during the almost century of English planting on the Bay.

For the most part, the Company's servants displayed little enthusiasm for the limited agriculture that was possible on the Bay. This apathy was no doubt induced in part by the unyielding nature of the Bayside physical environment and the disappointments that so frequently attended their agricultural labours. However, it was also shaped by the nature of the Company's business and the inclinations and skills of the men on the Bay. Some of the factors, such as Thomas, Marten, Fowler and Graham, were active gardeners. The majority, however, were unresponsive to the Committee's urgings and were content to confine themselves to an indifferent, small scale kitchen gardening. Most of the Company's officers, like Richard White, has "never been used to Tillage," and were "very indifferent Judges in those Matters."^{170.} Except for the fur trade, "The Whole a Barren Country" was^{171.} Thomas White's opinion of the Company's lands. The

170. Richard White in United Kingdom, op. cit., p. 219.

171. Thomas White in H.B.C., Parliamentary Select Committee of Enquiry on State of Hudson Bay ... Held in 1749-Miscellaneous Papers 1733-1749, E 18/1, fol. 197.

general lack of concern for gardening was perhaps most roundly put by Thomas White at York. His "time and thought," he stated, were "sufficiently employed in what was more conducive."^{172.}

This indifferent attitude harboured by many of the Company's officers on the Bay, who were generally given considerable latitude in their activities at the different posts, is further mirrored in their responses to instructions from London. In a sensible attempt to improve gardening, surgeons and traders beginning in 1733 were made responsible to send home samples of "roots, herbs, plants and shrubs," as well as "seeds, kernels and berries" with a description of their qualities. This request, however, was complied with only reluctantly and after considerable delay. For example, it was reported from Albany in 1734 that "as to herbs, plants etc. we have not any about our factory,"^{173.} while from Moose it was noted "We shall diligently observe your instructions concerning ... plants, herbs etc. but have not as yet got any."^{174.} Similar reactions were forthcoming from Churchill

172. "Letter from Thomas White, York Fort, 6 August 1735," in K.G. Davies (ed.), op. cit., p. 200.

173. "Letter from Joseph Adams and others, Albany Fort, 12 August 1734," in ibid., p. 193.

174. "Letter from William Bevan and others, Moose River, 20 August 1734," in ibid., p. 196.

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in 1735 where "it was not a proper season to get them in,"^{175.}
while the officer at York in the same year assured the
Committee that, although the order would be complied with in
future, there were no flora at York "but what may be gathered
in any common field or ditch in England."^{176.}

This apathy in large measure accounts for the limited
scale of gardening at the Company's posts. Scale was also
affected by the advantages of cultivating within the stock-
ades, a practice which was desirable for both security and
microclimatic reasons. Another factor which had a limiting
effect upon gardening was the manner in which the labour input
coincided with the period of maximum trading activity at the
posts. The factors were loath to commit men to activities
of this sort when they could more profitably be put to other
tasks, or when security of the posts might be impaired.

When it became apparent that no substantial agricultural
production could be expected from Moose, the Committee's
interest in arable agriculture waned. Like the Company's

175. "Letter from Richard Norton, Prince /of/ Wales
Fort, Churchill River, 16 August 1735," in ibid., p. 202.

176. "Letter from Thomas White, York Fort, 6 August
1735," in ibid., p. 200.

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overseas officers, it too came to expect nothing more than the small scale kitchen garden that all previous direction from London had failed to improve upon. Following 1740, however, interest was re-kindled in animal husbandry. The draft capability required for construction at Churchill had necessitated sending domestic cattle to that post. The experience with cattle at Churchill led the Committee to send them to the Bottom of the Bay, where they did well enough to become permanent features at all the settlements on the Bay. At the same time the Committee adopted other measures to render the provisioning of the posts more dependable.

From the time of the first English settlement on the Bay, the main supplements to European fare had been the products of the great goose and partridge hunts. Fish and deer were also of some import, but it was upon the partridge or ptarmigan, and especially the geese, that the different posts relied. However, it was the home guard Crees, and not the Europeans, who conducted these hunts. Not only did this occasion considerable expense, but it caused the Company to depend on a people who could not always be relied upon in a business relationship of this nature. In the late 1740's the Company began a policy of encouraging its servants to replace the Indian hunters. In the Albany post journal

in 1749, for instance, it was recorded: "have sent 9 of
our men along with ye Indians to learn to kill geese." 177.

Although the home Indians resented this policy and the English proved none too proficient in hunting, the Committee persisted in this policy, as is evident in the following instructions sent to all the posts in 1751:

"Although we do not perceive hitherto any great Good Effects from the Mens Hunting, Yet it is what we wish much for the Welfare of our Factories and Servants that they might upon necessity be able to provide themselves should the Natives refuse to Hunt as has been the case at some of our factories we do therefore again direct that they be continued to Hunting and Fishing at all proper Seasons and that they may be encouraged to become proficient therein." 178.

The Company's servants never became as expert at hunting as were the Crees born to a hunting subsistence in the Bay-side environment. According to Samuel Hearne, "The Indians are far more expert in killing geese, as well as every other species of game than any European I ever saw in Hudson's Bay." 179.

Although this policy met with some success, the Company did not manage to free itself of the subsistence support of the home guard Crees. The situation, and the

177. H.B.C., Albany Post Journal, B 3/a/40, April 7, 1749.

178. Ibid., Governor and Committee to Messrs. George Spence and Council at Albany Fort, London, 6 May, 1751, A 6/8, fol. 63.

179. Samuel Hearne, op. cit., p. 367.

problems posed for the Company, are well summed up in the general letter to Albany in 1762.

"If our Servants had been (as we have frequently directed they should) employed and used to Hunt and Fish our Settlements would not have Depended on the Indian Hunters for Subsistence, nor would those Hunters had it in their power to distress us by making it Difficult to retain them in our Service. The greater your wants the more will they always make the Merit of Supplying them. We are satisfied from Experience that if diligence be used a great part of your food may be furnished by our Servants to the saving a great part of the vast Expense which an Entire Supply of Beef and Pork would Cost us; and besides would in Consequence Destroy that Indolence which so universally prevails in our Settlements." 180.

Even had the Company's servants become as proficient as the Crees in this endeavour, it would not have solved the provisions problem. Even the Crees died of want, and it had long been Company practice to supply them with oatmeal and other provisions during lean times. Although geese, and even caribou, were plentiful in some years, they were conspicuously absent in others, while the fluctuating cycles of partridge and ptarmigan saw winters of abundance sometimes followed by several years of scarcity. "In fact," wrote Samuel Hearne, "after twenty years residence in this country, I am persuaded that whoever relies much on the produce of the

180. Ibid., Governor and Committee to Messrs. Robt Temple and Council at Albany Fort, London, 24 May, 1762. A 6/10, fol. 26.

different seasons, will frequently be deceived and occasionally expose himself and the men to great want." ^{181.}

By the end of this period, the Company's servants at most of the posts were employed fishing and hunting partridge, but the geese were largely procured by the Indians. The latter was due in part to the skills of the Company's servants, but also to the coincidence of the spring goose hunt with the main trading period. This was the time when the plantations around the posts were crowded with Indians, which for security reasons militated against dispersing large numbers of the Company's servants to the goose tents. Although by the end of the period the Company was less dependent upon Indian hunters, at least as much expense was incurred in procuring country produce, while it is doubtful whether a reduction in the volume of European foodstuffs was achieved by replacing the Indians with Europeans. Moreover, the vagaries of the hunt were such that neither a cheap nor a dependable local food supply was ever achieved on the Bay.

It was Company policy, then, to rely as much as possible on the game resources of the country. Even so, a large

181. Samuel Hearne, op. cit., p. 367.

1. The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β .

2. In the second part we consider the case of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β when the functions $f(x)$ and $g(x)$ are continuous and have bounded variation.

3. In the third part we consider the case of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β when the functions $f(x)$ and $g(x)$ are continuous and have bounded variation and the functions $h(x)$ and $k(x)$ are continuous and have bounded variation.

4. In the fourth part we consider the case of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β when the functions $f(x)$ and $g(x)$ are continuous and have bounded variation and the functions $h(x)$ and $k(x)$ are continuous and have bounded variation and the functions $l(x)$ and $m(x)$ are continuous and have bounded variation.

5. In the fifth part we consider the case of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β when the functions $f(x)$ and $g(x)$ are continuous and have bounded variation and the functions $h(x)$ and $k(x)$ are continuous and have bounded variation and the functions $l(x)$ and $m(x)$ are continuous and have bounded variation and the functions $n(x)$ and $p(x)$ are continuous and have bounded variation.

6. In the sixth part we consider the case of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β when the functions $f(x)$ and $g(x)$ are continuous and have bounded variation and the functions $h(x)$ and $k(x)$ are continuous and have bounded variation and the functions $l(x)$ and $m(x)$ are continuous and have bounded variation and the functions $n(x)$ and $p(x)$ are continuous and have bounded variation and the functions $q(x)$ and $r(x)$ are continuous and have bounded variation.

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proportion of the food, and especially certain kinds of food, had always to be obtained from England. Given this dependence upon European food and the local products of the hunt and the fishery, what was the role of agriculture at the Company's settlements? Obviously, the produce of the small kitchen gardens contributed an almost negligible portion of the total volume of foodstuffs required on the Bay. What the products of gardening lacked in volume, however, they made up for in kind.

D. THE ROLE OF AGRICULTURE

Food was a major and persistent problem which, for the men on the Bay, was never an easy one to solve. As the Company sent out a minimum of English provisions, fluctuations in the volume of country produce from season to season could cause periods of extreme want at the different settlements. "To remedy this evil," wrote Samuel Hearne, "it is most prudent for those in command to avail themselves of plentiful seasons, and cure a sufficient quantity of the least perishable food, particularly geese." ^{182.} Salt was the main means of preserving food and, although it may seem

182. Ibid., p. 367.

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CHAPTER IV

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strange from our vantage in time, no idea of refrigeration in summer seems to have existed. There was, however, a practice of hanging salt meat on watering hooks in cold water in order to "freshen it," but this procedure was employed only to reduce the salt content prior to eating.

Salt meat, whether in the form of pork or beef barrelled in England, or geese salted on the Bay after the fall and, more especially, the spring goose hunts, comprised the staple foods of the Company's servants when fresh meat was unavailable. The latter, of course, were supplemented with biscuit, flour, barley, oatmeal and other dry foods from England, but meat was the mainstay of the Bayside diet. The food processing technology employed not only permitted the transfer of English food to the Bay, but also enabled the traders to take advantage of seasons of plenty on the Bay in order to render their subsistence more secure in the all too frequent times of scarcity. Gordon Lewthwaite has pointed out that "there is reason to suspect that occupance of broad zones of marginal land has been related more to the evolution and application of systems of preservation and storage than to some other physical or cultural factors that have been pressed into geographical, historical and anthro-

pological service." ^{183.} Obviously, this ability to transport food from the metropolis to the frontier, and to store both local and exotic food against times of want, goes a long way toward explaining permanent settlement along the virtual wasteland that was the coast of Hudson Bay. The nature of this stored resource also explains in large measure the presence of agriculture at the Hudson's Bay Company's settlements during this period, despite the almost insuperable environmental obstacles to its practice.

Very important in the winter diet on the Bay was the fresh meat afforded by partridge, ptarmigan, rabbits, deer and frozen fish. This was one of the best available methods of protecting the men from scurvy, which undoubtedly would have worked havoc among them had they been wholly dependent upon salt provisions. In summer, however, when the fishing was poor, when the flocks of partridges had dispersed and when the geese had flown to the northern tundra, the Company's men were most dependent upon salt provisions. This was the season when garden greens were most necessary to the health of the men. Meat, even in the raw form, is not the best

183. Gordon R. Lewthwaite, "A Plea for Storage Geography," The Professional Geographer, Vol. XXI, No. 1, January, 1969, p. 1.

provider of vitamin C, and when spring arrived, the potential for scurvy was already high among the men.

It is interesting to note that, with the opening of spring, the Company's men availed themselves of wild greens, such as dandelions and nettles, as their best protection against scurvy. The wild plants were followed by the earliest greens from the gardens, such as radish tops, and subsequently by others, so that from gardens roughly one acre in extent a limited, but more or less constant, supply of vegetables, and especially greens, was available to supplement the heavy salt meat diet of summer. The failure of various vegetables to mature in the cool summer climate did not substantially affect their usefulness in the mess, nor did summer frosts always reduce the gardens to inutility. When yields were large enough, some of the vegetables were stored in ways that permitted their use with more or less frequency over the long winter. On occasion, moreover, a few vegetables were also made available for use on the ships returning to England.^{184.}

Although other means were also employed to mitigate the

^{184.} H.B.C., Albany Post Journal, B 3/a/60, September 17, 1767.

effects of scurvy, it was never completely eradicated at the Bayside establishments. Besides the dandelions and nettles mentioned, a variety of berries were also gathered during the Bayside summer. Some of them appear to have been collected in considerable quantities. Cranberries, for example, grew in some profusion in the vicinity of Churchill. They were kept in casks of moistened sugar at Churchill and, during the latter part of the period, were annually sent to England packed in this manner, or in barrels of water.^{185.} Beer, and particularly spruce beer, was consumed in large quantities at the settlements. It was consumed mainly in winter and, although boiling the spruce tips destroyed almost all of the vitamin C, it was used as an anti-scorbutic. When Captain Middleton wintered at Churchill he noted that "spruce beer and brandy" are "the only means used here to prevent scurvy."^{186.} Referring to the men who were ailing with scurvy, Middleton wrote that "In the spring of the year we shall supply them with green herbs - the best remedy known here for scurvy."^{187.}

185. Samuel Hearne, op. cit., p. 289.

186. Captain Christopher Middleton in John Barrow (ed.), op. cit., p. 112.

187. Ibid., p. 113.

Various other remedies for scurvy were tried on the Bay at different times. Lime and orange juice figure in the lists of cargo consigned to the Bay. In 1785 the Committee sent out "some Casks of Sour Crout, Pale Malt for Wort and an additional quantity of Scotch Barley to prevent the Attacks of Scurvy."^{188.} Six years later "eight casks of Essence of Malt ... with Directions for using it" were sent out. The Committee described the latter as "in general use with our Navy and East India Company meets with the most Distinguished Appriation and is esteemed the best remedy for the Sea and Land Scurvy ever discovered."^{189.} However, fresh vegetables, and especially greens, were recognized as the best preventative for scurvy and no alternative solution had been found by the Company during the period under consideration. In 1793 for example, it was noted at one of the posts that garden produce was still considered "the best preventative against scurvy."^{190.}

188. H.B.C., Governor and Committee to Mr Edward Jarvis and Council at Albany Fort, London, 4th May, 1785, A 6/13, fol. 121.

189. Ibid., Governor and Committee to Messrs. Edward Jarvis and council at Albany Fort, London, May, 1791, A 6/14, fol. 126.

190. Ibid., Churchill Post Journal B 42/a/118, September 3, 1793.

The vegetable produce also constituted an important factor in the general physical well being of the Company's servants. In 1789, for example, the journalist at Churchill could write with considerable conviction that "Under God I attribute the healthfulness of your Honours Servants to the produce of our garden."^{191.} The vegetables also provided a welcome relief from a monotonous diet, another factor which should not be dismissed as an inducement to gardening, even along the bleak, coastal margins of the Bay.

The livestock at the Company's settlements afforded a small, but dependable, supply of fresh provisions. Although the volume of meat from the domestic animals made no serious impression upon the total amount of food required at the different settlements, the livestock, together with garden produce, afforded the only sources of fresh provisions when the hunt and fisheries failed. Unlike the gardens, the livestock comprised a potential supply of fresh food which could be utilized at any time of the year. Although generally slaughtered in autumn, a reservoir was retained as stock, which provided additional insurance against times of extreme

191. Ibid., B 42/a/114, September 30, 1789.

want. Under circumstances of this nature, the amount of fresh food available from even small numbers of livestock could assume considerable value.

The few goats at Churchill and York, as well as the sheep and hens kept at most of the settlements, contributed least to the larder. Hogs were of more importance, especially at Churchill, York and Severn, where only a few cattle were maintained. The small Orkney pigs, however, dressed at only ^{192.} sixty or seventy pounds. As the pork slaughter in autumn at any of these posts rarely exceeded a dozen animals, including young pigs, the fresh pork available would have provided a week's subsistence at most for the relatively large numbers of men at York and particularly Churchill. During the latter part of this period, for example, the complement of men at Churchill ranged from about fifty to ^{193.} seventy men and that at York from thirty-five to fifty. About the same amount of pork seems to have been produced at Albany and Moose as at the northern settlements. In the fall of 1773, for example, "about 500 lbs. of fine pork" were

192. Reverend George Low, op. cit., p. 11.

193. Andrew Graham, op. cit., pp. 248, 251.

slaughtered at Albany, ^{194.} for a complement of about forty
^{195.}
men.

Cattle provided the bulk of the meat from animal husbandry at the southern settlements. In the last two decades of the period, from two to four cattle were slaughtered each fall at Albany and Moose and, by the end of the period, the herds at both settlements comprised about thirty head. Although the numbers of cattle were sometimes substantially reduced, cattle were freely exchanged among the posts and the herds rebuilt. In 1792, for example, there was no slaughter at Albany because "our small stock of cattle will ^{196.} not bear a diminution." At Moose, in contrast, the herd was large enough for a considerable slaughter: "I killed eight Beasts this fall we keep a good stock of them which contributes much to our comfort and the Company's interest as it is the only fresh Provision I have to give my Men and If I could not kill a good Stock of Beef I must have ^{197.} more Beef and Pork from England." The herd at Albany,

194. H.B.C., Humphrey Marten to Thomas Moore, Albany Fort, March the 1st, 1774, B 3/b/11, fol. 10.

195. Andrew Graham, op. cit., p. 252.

196. H.B.C., Letter from John McNab to Mr. Thomas at Moose, Albany Fort, 6 Decr. 1792, B 3/b/30, fol. 9.

197. Ibid., Letter from John Thomas to John McNab, Moose Fort, 20th Decr. 1792, B 3/b/30, fol. 10.

however, appears to have recovered for in 1797 the factor at Albany wrote: "no partridges and few rabbits and fish so that fresh Beef is as usual our only stand by for a fresh Meal."^{198.}

The variable nature of provisionment and the role of livestock in this connection is well illustrated in the following comments from Moose and Albany in the winter of 1784-85. In 1784 the chief at Albany "intended to have killed nine or ten beasts, as my Hay was short as well as fresh provisions, but unfortunately find the numbers reduced to 8 less than I expected ... so that two poor Cows is all that I can afford among 44 men for a whole winters fresh provisions."^{199.} At Moose, the following was written at the end of January, 1785:

"I had a tolerable good goose hunt having salted 20 Casks and I have received a few Rabbits from Indians during the winter, with which, and the Beef and Pork killed we have been pretty well off for fresh food till Christmas, since we have lived almost wholly on salt." 200.

198. Ibid., Letter from John McNab to Mr. Thomas at Moose, Albany Fort, Decr. 10th, 1797. B 3/b/35, fol. 5.

199. "Letter from Edward Jarvis to Mr. John Thomas Chief at Moose Fort, Fort Albany, December 15th 1784, in K.G. Davies (ed.), op. cit., Appendix A, p. 253.

200. "Letter from John Thomas to Mr. George Atkinson at Eastmain House, Moose Fort 29th January 1785," in ibid., Appendix A, p. 265.

Although the numbers of livestock varied from one year to the next, only rarely was the fall slaughter not engaged in at the different posts. Moreover, some stock was always available for emergency use and, even if depleted, could be replaced with breeding animals from the other settlements. In a sense, the livestock comprised a storage system which, given the technology of the time, was the only way the traders could maintain a reservoir of fresh provisions that could be depended on regardless of season. With care, moreover, the Company's servants were not only able to maintain this reservoir, but they could supplement the mess in fall and early winter with meals of fresh beef and pork, and small amounts of mutton and poultry. Milk and eggs also made some contribution to a diet that in all seasons was deficient to some degree in fresh food.

The role of cattle in the dietary regime further explains the unequal distribution of cattle between the northern and southern settlements. As noted previously, cattle could be raised with more reasonable economy in the environment of the southern settlements. Not only was the environment at the southern settlements more suitable for cattle raising than that in the north, but the demand for beef was greater because of the relative scarcity of caribou and deer at the

Bottom of the Bay. At Moose, according to Graham, "They have a good breed of cattle and plenty of country provisions, except deer."^{201.} This relationship is more clearly described in Graham's account of Albany: "the trade is annually inferior to York Fort, and provisions are not so plentiful, particularly deer are scarce. However, they supply that want by keeping a stock of black cattle affording to freeze about 2000 cwt. [sic.] of beef yearly."^{202.}

In addition to their subsistence role, some of the livestock also performed a much needed transport service at the posts. Dogs were employed to permit winter travel for communication purposes between the different posts. They were also used in time of emergency to transport provisions and other goods from one post to the next. Following the establishment of Henley House, dogs were employed in most years to transport goods between that place and Albany in winter. After the fall goose hunt at Albany, salt geese were normally sent to Henley in this manner in early winter. Although the numbers of dogs is not known, they most probably

201. Andrew Graham, op. cit., p. 255.

202. Ibid., p. 252. Clearly the figure 2000 cwt is an error. The amount of beef frozen each autumn at Albany was probably in the order of 20 cwt. or 2000 lbs.

were not excessive, as they were useful only in winter, and were in direct competition with the men for a food supply that was not abundant.

Very few horses were kept on the Bay at this time. None was employed at the Bottom of the Bay. The solitary horses that appeared at York and Severn came from Churchill where horses had first been sent to assist in building the stone fort. The most important draft animals on the Bay were the cattle. Oxen were employed at a miscellany of tasks, but particularly in hauling the large amounts of wood required for fuel and construction. The oxen, in contrast to the dogs, were capable of hauling much heavier loads and could be used summer and winter. They were judged superior to horses in this role as they could withstand greater degrees of cold and worked better in snow. And not to be overlooked, oxen were more palatable to the Company's servants than were horses.

CHAPTER VII

SUMMARY AND CONCLUSIONS

The first permanent English settlements on the Canadian mainland were effectedd by the Hudson's Bay Company on the shores of the great northern Bay from which the Company derived its name. It was at these settlements, shortly after the incorporation of the Company in 1670, that agriculture first appeared in Rupert's Land.

Agriculture was introduced in the hope that it would prove a desirable adjunct to the fur trade. Although its utility was frequently questioned, it was pursued by the Company with more or less enthusiasm, and with varying degrees of success, over the two centuries that the Company held title to Rupert's Land. The greatest obstacles to a successful Company agriculture were encountered during the first century of operations. During this century, the Company clung to the Bay, and attempts at agriculture were confined to the arctic and subarctic settlements about its margin.

The harsh nature of the Bayside physical environment severely circumscribed the kind of agriculture that could be engaged in at the Company's settlements. The limitations of

environment, together with the strict economy of the fur trade, determined the scale of the agriculture at the different settlements. It was these factors that limited arable agriculture to the cultivation of several hardy vegetables in kitchen gardens and animal husbandry to the tending of small numbers of well adapted livestock. The scale of agriculture was such that it made no significant contribution to the total provisioning needs of the relatively small numbers of Company servants living on the Bay. Despite the almost overwhelming obstacles to its practice, agriculture persisted at all of the settlements during the period of Bayside trading. That it did was owing to the unique contribution it made to a diet that was almost always deficient in the fresh food required to maintain the health of the men.

During the first half of this period, however, the Company endeavoured to develop an agriculture capable of making significant reductions in the imported food required at its overseas settlements. These endeavours were pursued most vigorously during times of economic stress, and derived from an inadequate knowledge of the environment that was further distorted by the climatic thinking of the time. It was not until the late 1730's that the Company displayed any realistic appreciation of the agricultural potential of the lands it had settled and ceased to direct its servants to

raise by the Bay what the environment would not yield. Thereafter, the Committee continued to encourage agriculture at its establishments, but came to consider agriculture as a supplement to, and not a replacement for, the European fare required on the Bay.

The exaggerated opinions that the Company held concerning the Bayside agricultural resource were, in the middle of the eighteenth century, reiterated by the Company's critics in England and applied to the largely unknown lands beyond the Bay. As only very slight and fragmentary information was available on the nature of these lands, there was created at this time a theoretical physical geography of the interior of Rupert's Land. In contesting the Company's title to the land, its opponents depicted the country immediately to the south and west of the Bay as eminently suited to English colonization and settlement. Since these views were not opposed by the Company and were well grounded in the scientific theories of the time, what was in fact speculative and theoretical won acceptance in England as geographical reality during the latter half of the eighteenth century.

Even had it been willing, the Company was in no position to effectively oppose the image of its lands that grew out

of the public debate on this topic at mid-century. Despite the scope of the charter, the Company's trade from the outset was a trade in furs. Although interest was expressed occasionally in minerals and other commodities which it felt might be exported profitably, it was the fur trade and supporting enterprises that pre-occupied the Company and determined its policies throughout the entire period. Within a few decades of its founding, the Company's commerce in furs was expanded by the trading Indians throughout the greater part of the vast drainage basin centered upon Hudson Bay. It was therefore unnecessary for the Company to penetrate the interior to gather the furs of the region, which was accomplished by maintaining several settlements strategically located at the mouths of the major rivers draining the basin. Because of its aversion to the problems and expenses of inland settlement, the Company elected to exploit the advantages of its geographical situation and, throughout this period, remained a small scale enterprise trading by the Bay. It is not surprising, therefore, that it also remained woefully ignorant of the interior lands that sustained this trade. Even the inland wintering programme that preceded the establishment of the Company's first inland settlement failed, because of similar objectives, to shed much additional light

on the physical nature of the interior. Although by the end of this period the Company had come to recognize the physical limits to agriculture on the Bay, only in the course of expanding its settlements inland would it come to appreciate these limits throughout the remainder of its chartered lands.

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Most of the Hudson's Bay Company sources employed in this study derive from Sections A and B of the Company's archives. Section A relates primarily to the Company's affairs in London and contains materials of concern to the Company as a whole. Included in this section are the Company minute books, account books, London correspondence outward and London correspondence inward. Section B contains the records of the individual trading settlements in Rupert's Land and is sub-divided as follows:

- a. post journals
- b. correspondence books (outward and inward entries)
- c. correspondence (inward)
- d. account books
- e. reports on district
- f. lists of servants
- z. miscellaneous items

The Section B sub-categories a, b and c are most frequently referred to in the thesis.

The Company's archives is further classified into Sections C, D, E, F and G. Section E, which is a miscellaneous category, contains copies of journals of individual employees, and is the only one of this group that has been used in the study.

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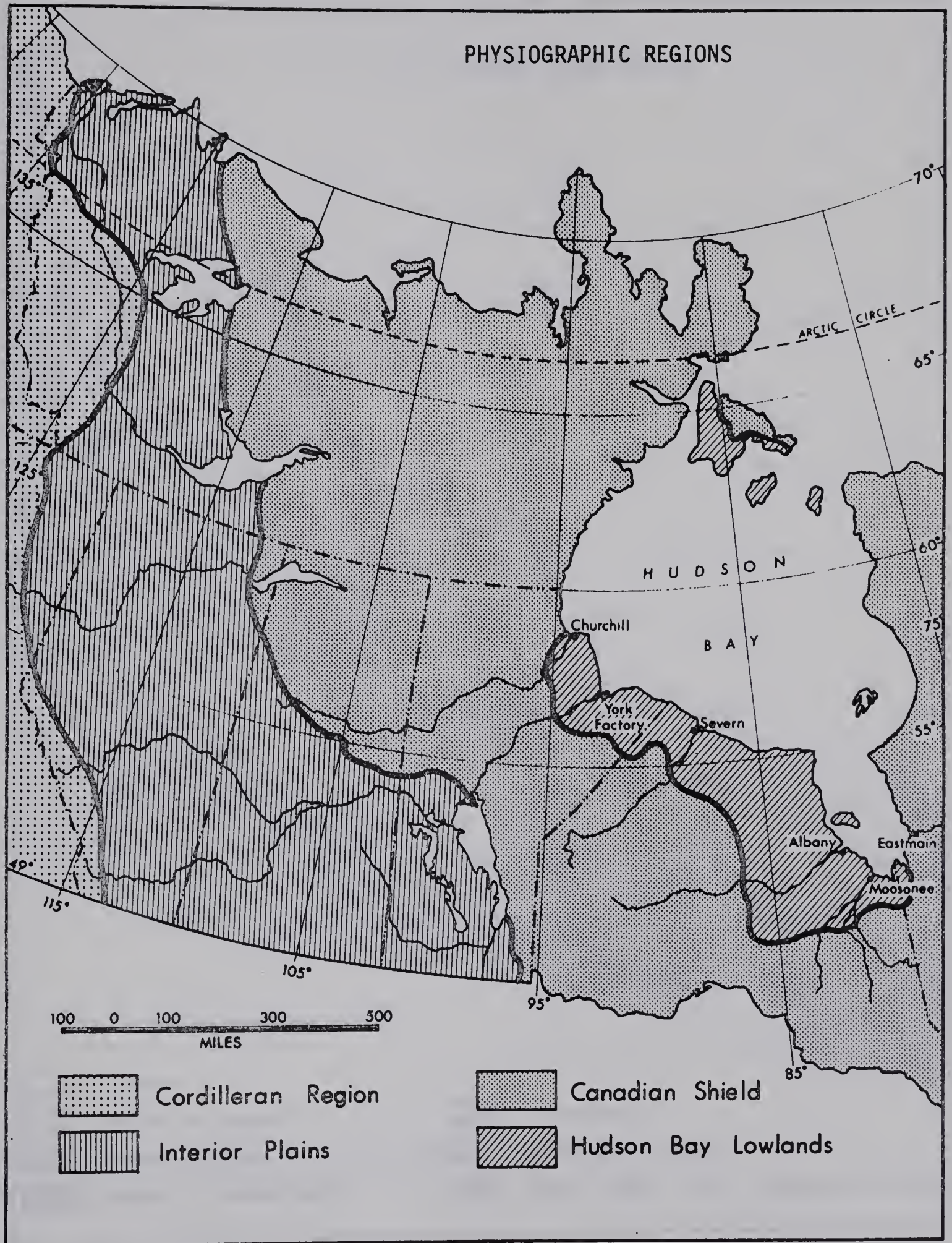
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APPENDIX

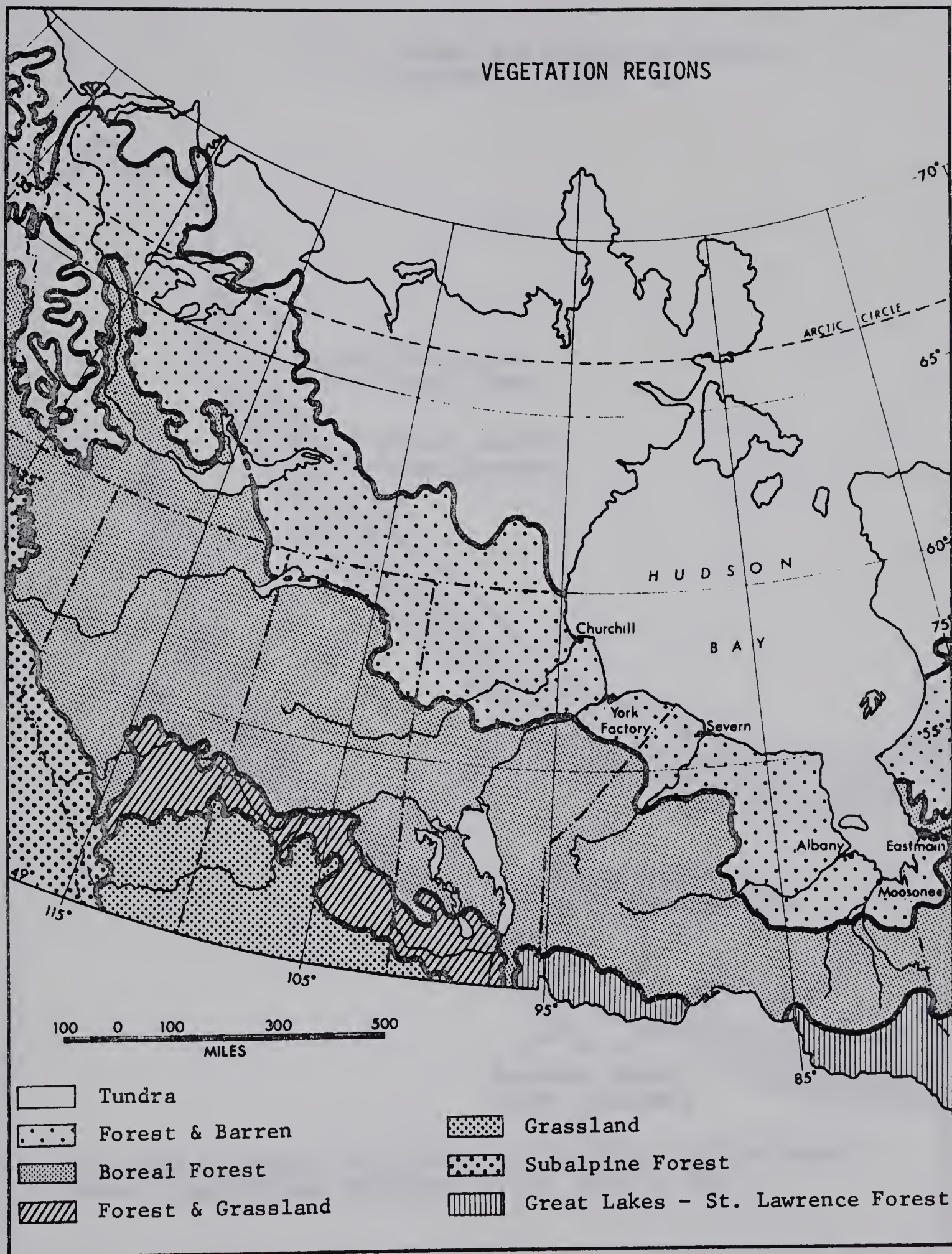
A. Selected Physical Maps

Figure 16



Source: Canada, Dept. of Mines and Technical Surveys, Geographical Branch, Atlas of Canada, Ottawa, 1957, Plate 13

Figure 17



Source: Modified from J. S. Rowe, Forest Regions of Canada, Dept. of Northern Affairs and National Resources, Forestry Branch, Ottawa, 1959, map in back pocket.

Figure 18

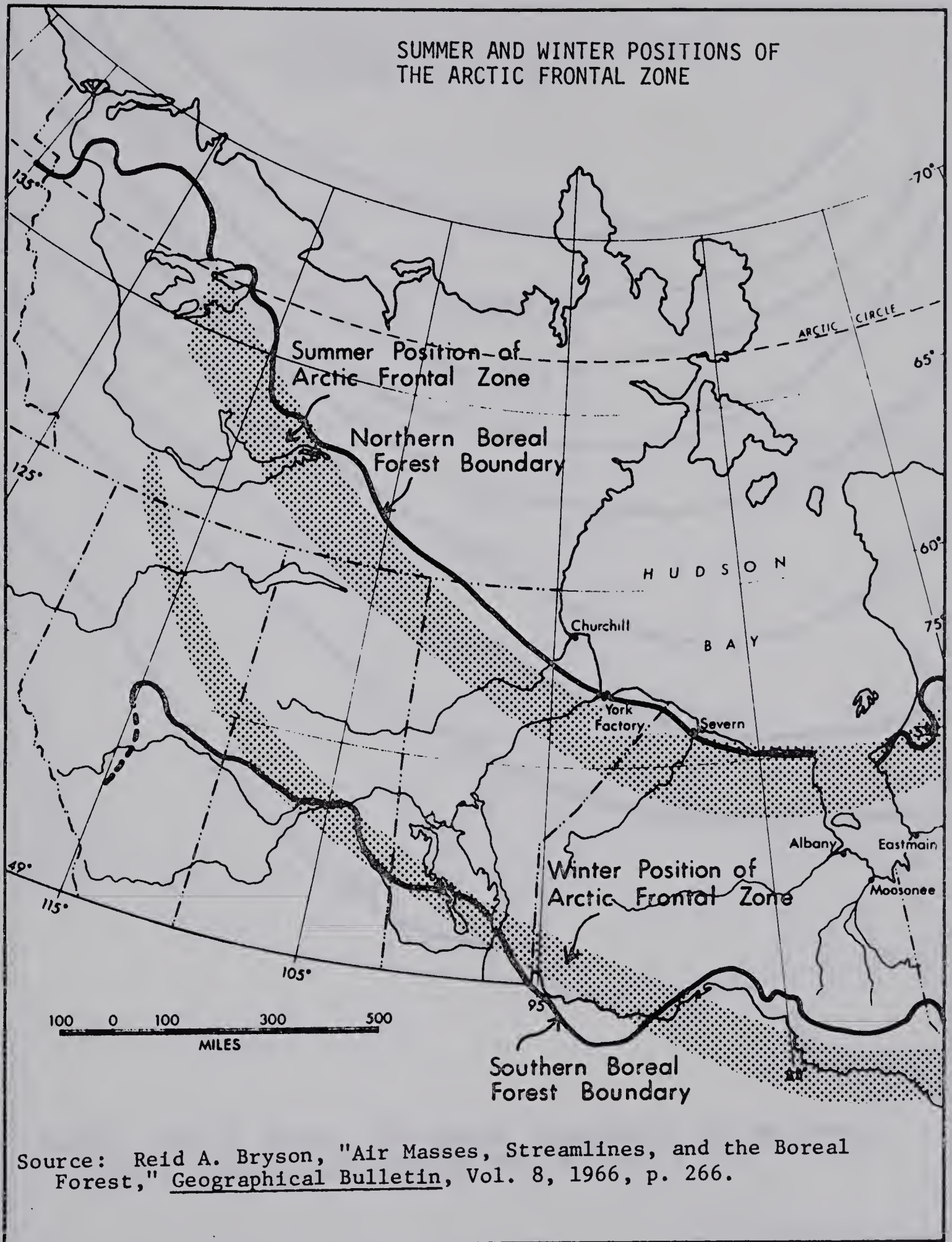


Figure 19

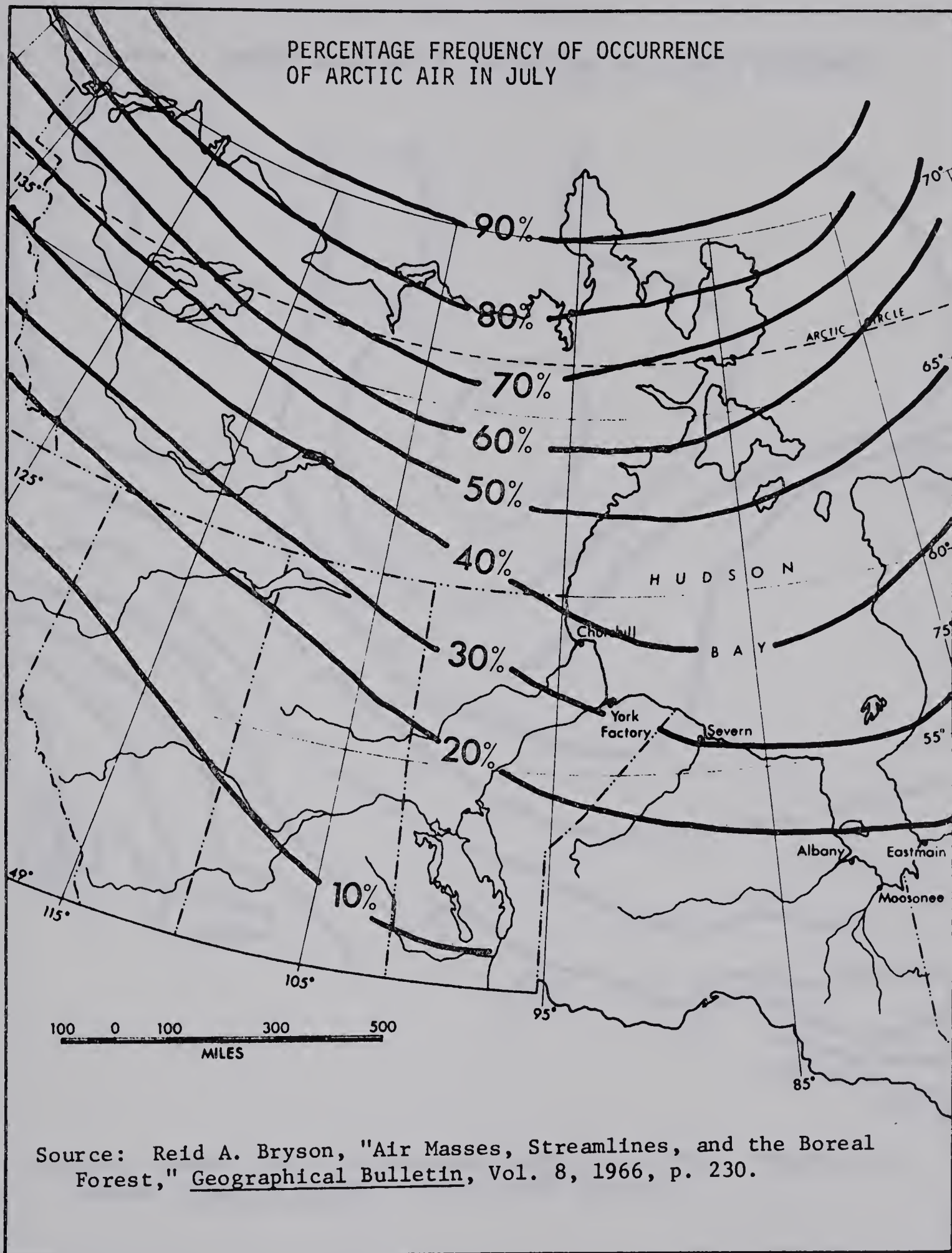


Figure 20

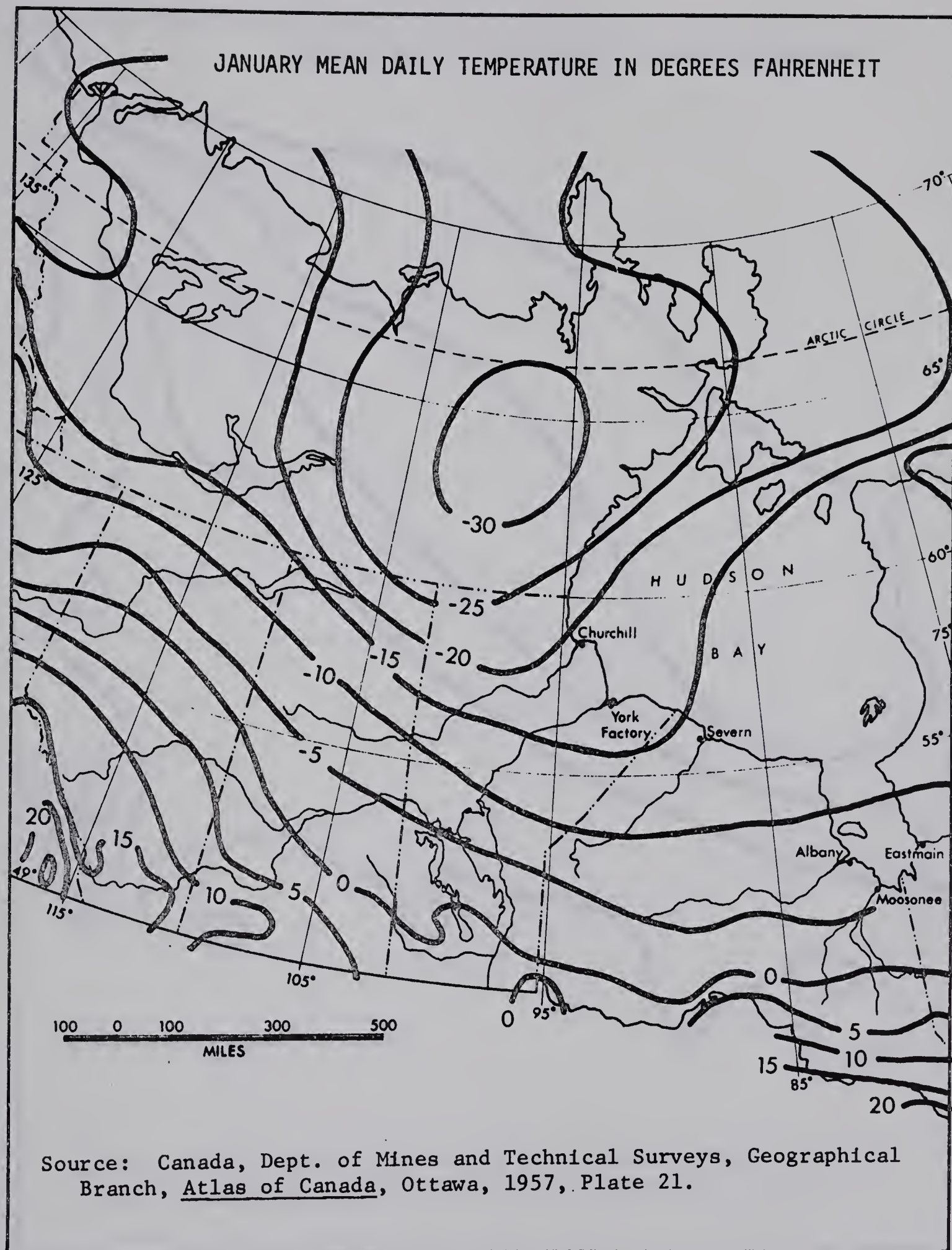


Figure 21

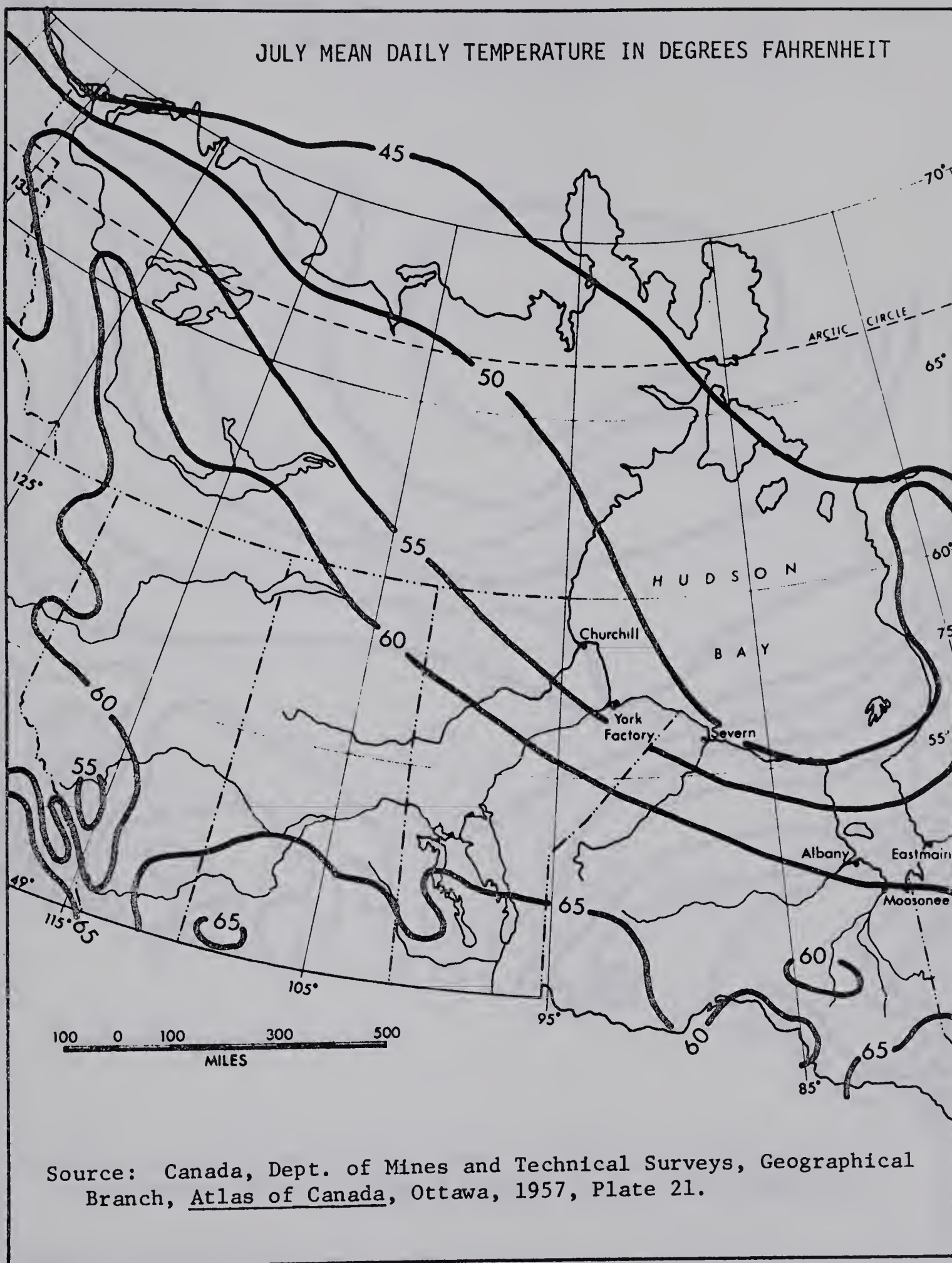


Figure 22

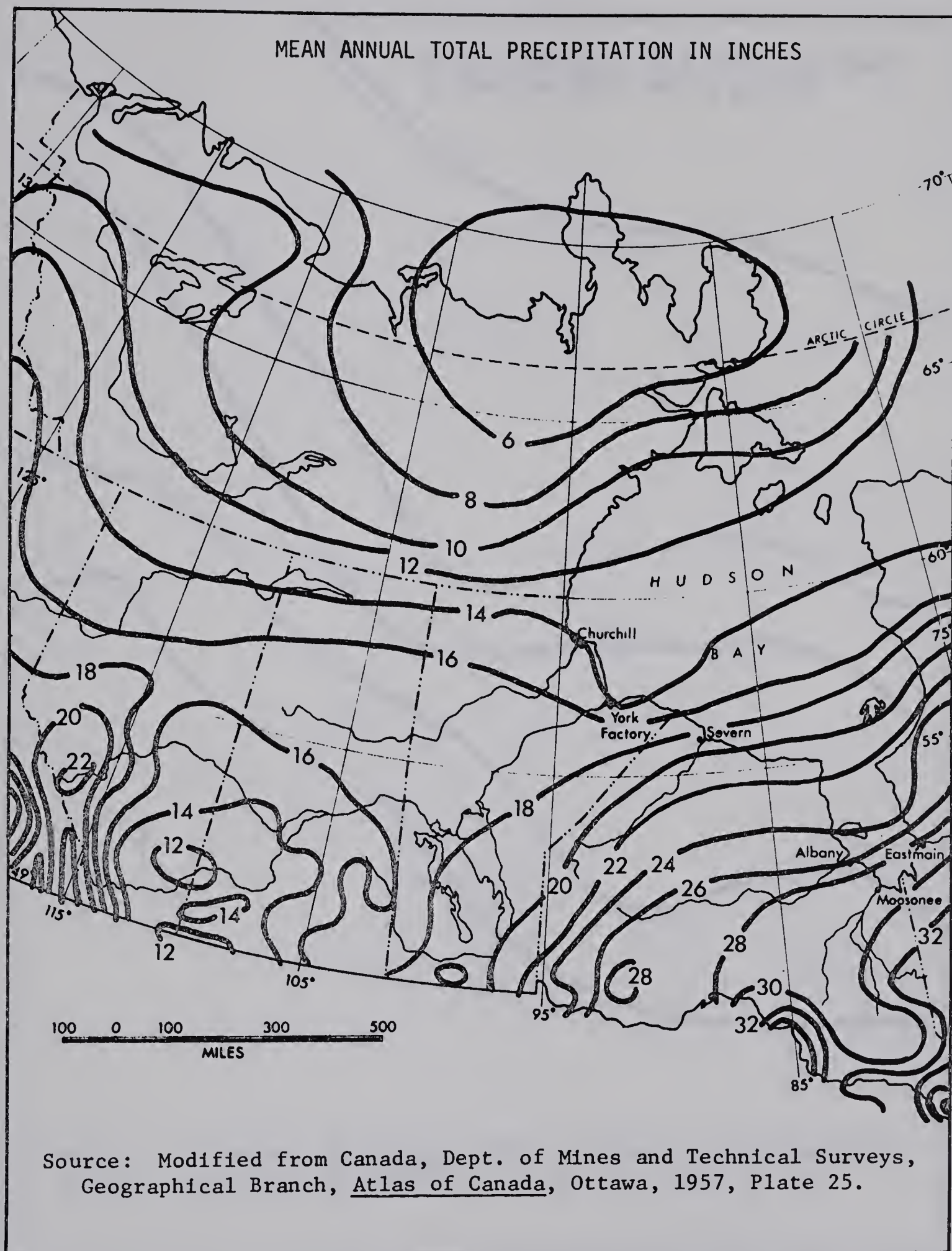


Figure 23

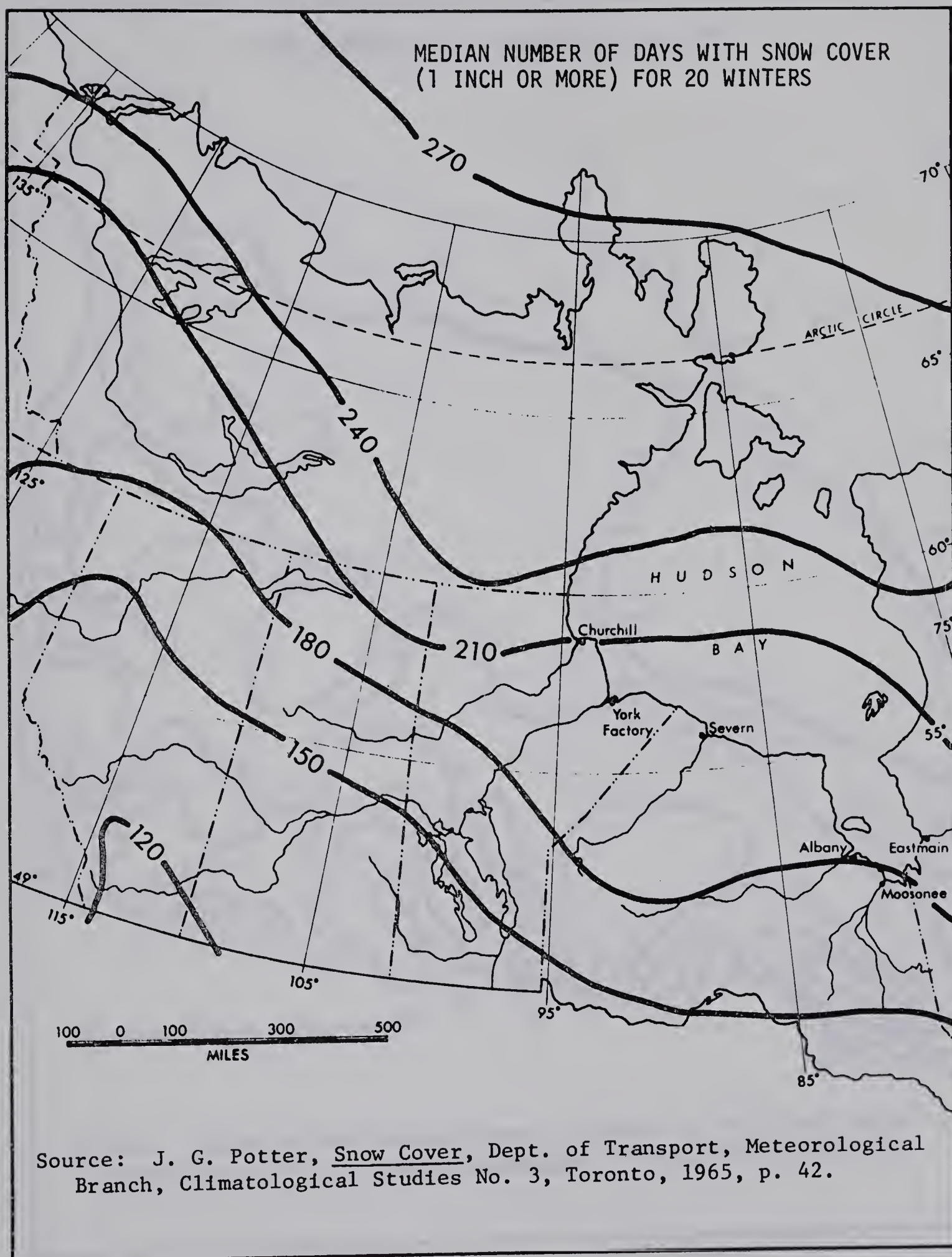


Figure 24

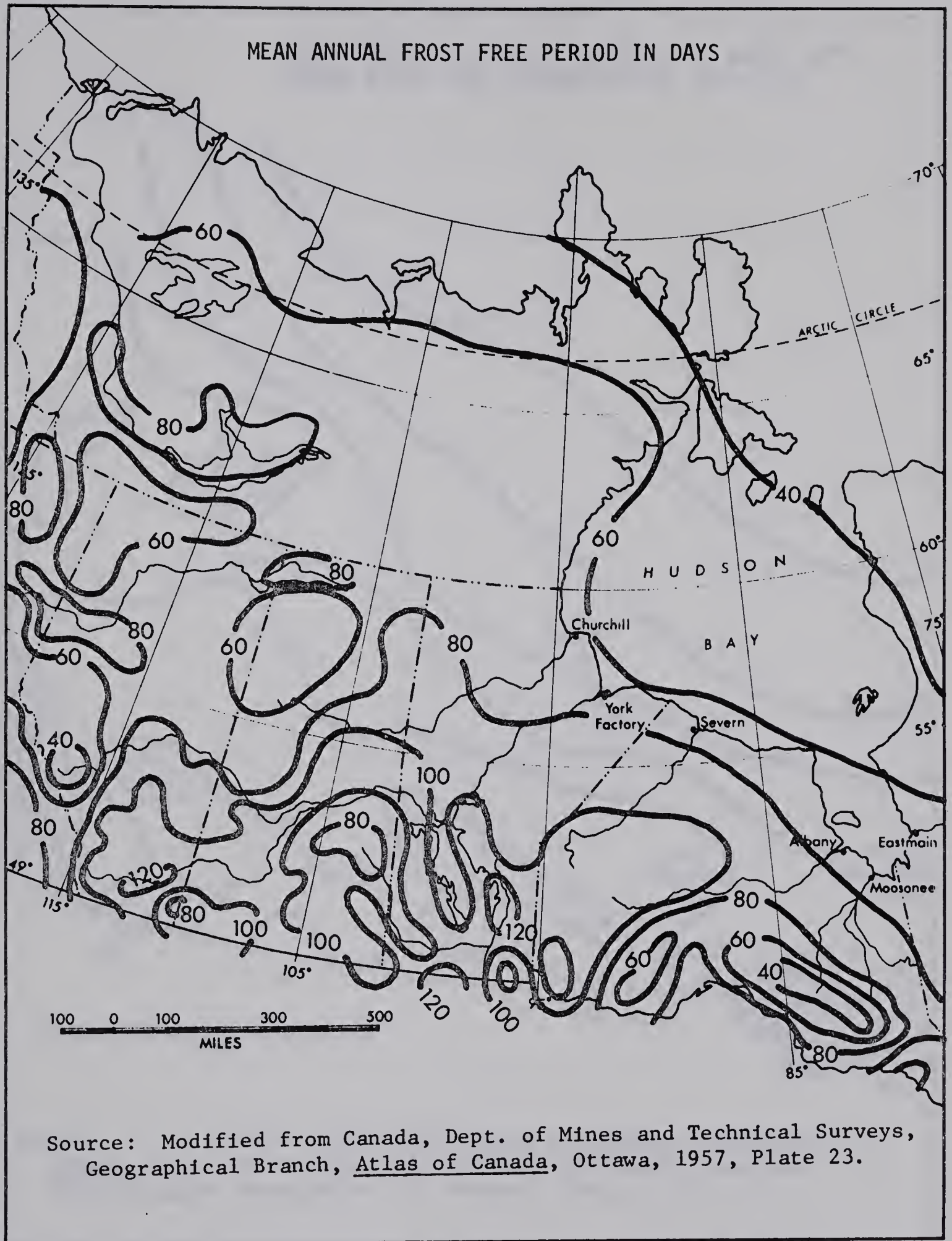
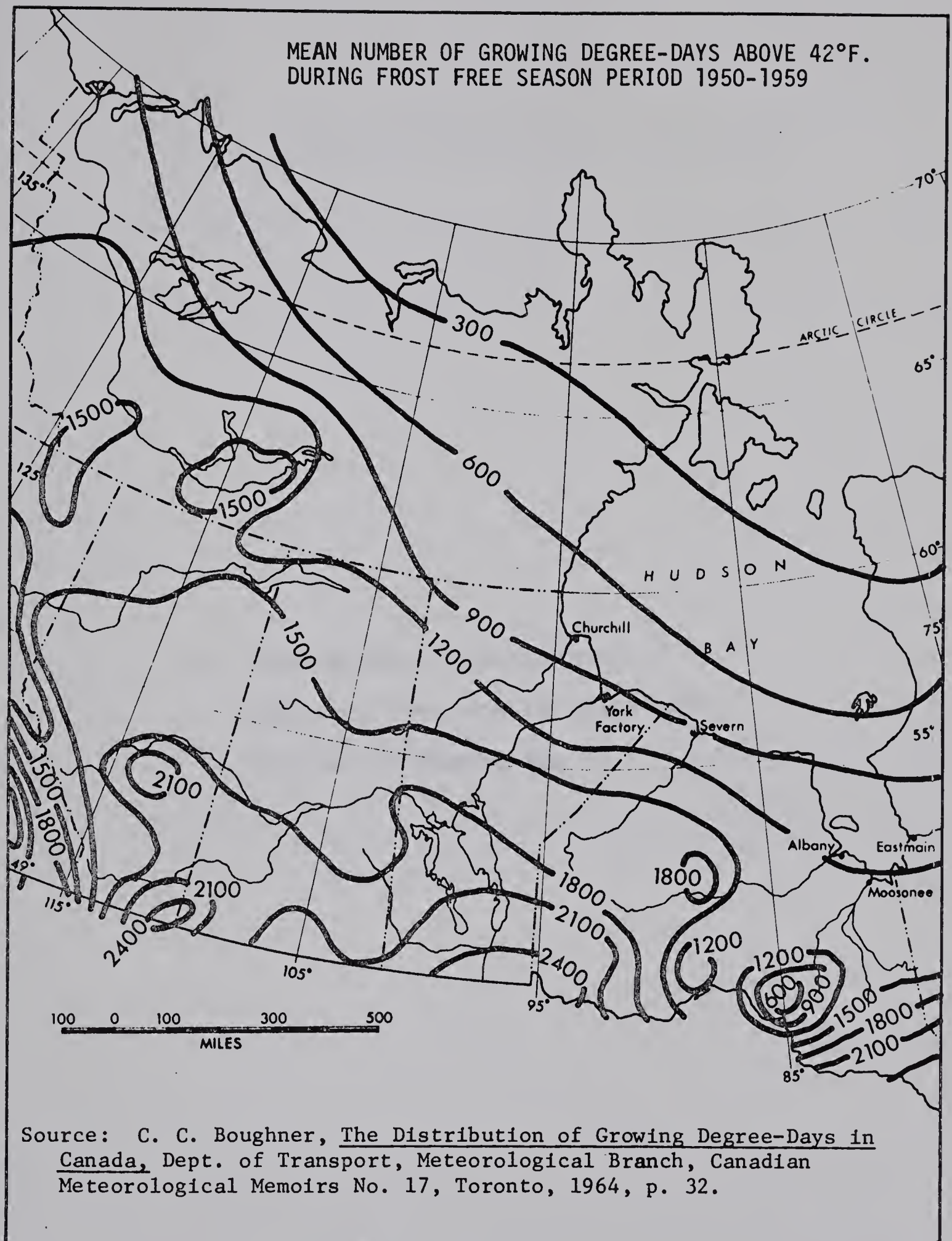


Figure 25



B. Mean Monthly Temperatures of
Selected Stations in Northwest
Europe and Hudson Bay

MEAN MONTHLY TEMPERATURES OF SELECTED STATIONS
IN NORTHWEST EUROPE AND HUDSON BAY

Station	Mean Monthly Temperatures (Degrees F.)											
	<u>J</u>	<u>F</u>	<u>M</u>	<u>A</u>	<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>	<u>O</u>	<u>N</u>	<u>D</u>
London	40	40	44	48	54	60	64	63	58	51	44	41
Moosonee	-5	-0.4	11	28	41	53	60	58	50	39	22	4
Edinburgh	39	39	41	44	49	55	58	58	54	48	43	40
Uppsala	24	23	27	38	49	57	62	59	50	41	32	25
Churchill	-16	-15	-4	12	30	42	55	53	43	28	6	-9
Oslo	25	26	32	41	51	59	64	60	52	42	33	27
Trondheim	26	26	31	39	46	54	57	56	49	41	34	28

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